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BALTIMORE, DECEMBER 9, 1909.

THE MESSAGE.

What a relief to a people long suffer-
ing through seven years is the first mes-
sage of President Taft to Congress!

WEST VIRGINIA APPLES.

Mr. Clarence D. Martin, secretary of
the Board of Trade of Martinsburg, W.
Va., informs the MANUFACTURERS' REC-
ORD that the executive committee of his
organization has adopted the following
resolution:

That the thanks of this committee be ex-
tended to the MANUFACTURERS' RECORD of
Baltimore, Md., for the efficient and elab-
orate service rendered in reporting the Apple
Carnival of 1909.

GUMPTION VS. GAB-FEST.

A practical piece of work for im-
migration to Texas is a map which the
Texas Commercial Secretaries' Associa-
tion has issued showing by counties the
number of acres of cultivated land and
of uncultivated land in the State, the
figures being brought down to date. The
organization obtained this information
from its members, tax assessors, mem-
bers of the legislature, county judges
and other reliable sources. The term
"cultivated land" embraces all lands
growing a crop in 1909, including do-
mestic pastures, and the total is 24,496,-
100 acres. The term "uncultivated
land" embraces all land not included in
the term "cultivated," and the total is
141,372,060 acres. Copies of the map
will be distributed among all the busi-
ness organizations of the United States,
immigration bureaus and libraries in
this country and abroad. It should
prove a great influence in swelling the
tide of immigration to Texas, giving

would-be immigrants a definite working
basis and enabling local commercial sec-
retaries to meet the immigrants half
way. What is thus to be accomplished
in Texas, in spite of its increase of
population through immigration at the
rate of 200,000 a year, is indicated in
the fact that the uncultivated area of
Texas exceeds the total area of all the
States bordering on the Atlantic, from
Maine to North Carolina inclusive. The
area of Texas is 262,000 square miles,
or nearly one-third of the total land
area of the South. The work which the
Texas Commercial Secretaries' Associa-
tion has done in issuing these maps is
in line with the practical business-like
work which the body has been doing
since its organization. It is that kind
of work which brings desirable immi-
grants into the South and benefits the
State. One such piece of work is worth
100 "Southern" conventions occupied
principally in talk and raising money to
support the investors. It is a case of
gumption against gab-fest.

ECONOMIC CONDITIONS DEMAND HIGHER WAGES.

The advance in the cost of living is
not confined to this country alone, but
to a considerable extent is world wide.
It is mainly due to economic conditions
which cannot be changed. Much of this
advance is the outcome of the great
flood of gold which for some years has
been pouring from the mines into the
channels of the world's trade. When
this great increase in gold output com-
menced, by its magnitude, to command
general attention, the MANUFACTURERS'
RECORD repeatedly called attention to
its certain effect in the increase in the
cost of production of almost everything,
including the output of the farms of the
country, as well as in the increased cost
of living, which would follow as a
natural consequence, and suggested that
the rate of wages would of necessity
have to be advanced in proportion to
the increased cost of living. It would
be a wise move for the railroads of the
country to recognize this situation. In-
creasing business, increasing prosperity,
justifies a recognition of the rights of
the laboring man to an increase in
wages because of the higher cost of liv-
ing. Whether the strike of the railroad
switchmen, which is tying up many
roads in the West, is justified or not,
and with the merits of the particular
situation we are not sufficiently fam-
iliar to express an opinion, it is never-
theless true that the higher cost of liv-
ing must be met by a general advance
in wages. During such a period of re-
adjustment of the world's economic
conditions as we are now passing
through strikes are almost inevitable.
The cost of living advances more rap-
idly than the adjustment in wages can
be made and out of this unsettled con-
dition come many perplexing problems
between the laboring man and the em-
ployers. It will, however, be wise if
the employing interests of the country
will recognize the situation as a world-

wide economic change, which must be
met honestly and fairly. The question
is one above free trade or protective
tariff. It is operative regardless of
tariffs. It is one which affects the
value of farm products and of many
manufactured products and causes a
steady enhancement in their selling
price regardless of temporary efforts of
"bulls" or "bears" to boost or depress
prices. Railroads and other large em-
ployers of labor will make a very great
blunder if they do not recognize the
situation and by fairness to the labor-
ing man avoid conflicts which would
otherwise prove disastrous to all in-
terests.

THRESHING COTTON.

A step toward the invention which
will revolutionize the harvesting of cot-
ton is indicated in the success of a new
form of gin in Oklahoma which gins
cotton in imperfectly opened bolls. Mr.
Oscar K. Lyle is quoted by the *New
York Commercial* as declaring that the
work of the boll gin is amazing and as
saying:

I am told one gin in Chickasha took in 21
remnants in one day, which means the finish
of that many crops. That gin has turned
out 727 bales, against 1800 in all of last year,
when they did not finish ginning until
March. The late finish and great number
last year was due to this gin that gins boll
cotton, and last year there was a world of
it, due to early frost. The bolls would crack
just a little, but not open. They were pulled
off in that condition resembling hickory nuts
in the hull. They came in wagon loads and
carloads from a distance and added many
thousands of bales to the crop. Talking
with the man who invented this gin, he said
that nearly 1000 bales of this class of cotton
was handled at Chickasha alone. So late as
March there was enough boll cotton at Man-
gum awaiting to be ginned to make 3000
bales; that they ginned boll cotton at Attus
to May 10 and at Vernon, Texas, to June 1.
A gentleman connected with the large cot-
ton-oil plant at Chickasha, where the boll
cotton machine started, says so much as
20,000 bales in Oklahoma were in that class.

Four or five years ago the MANUFAC-
TURERS' RECORD referred to a report that
about \$2,000,000 worth of cotton had
been saved in Northern Texas and parts
of Oklahoma by adapting a threshing
machine to obtaining cotton from bolls
that had not opened properly. There
had been an early frost checking the
growth of the plants and a heavy frost
later cracked the bolls. At that time
we suggested that the hint given by na-
ture might be applied to the culture of
cotton and to its harvesting. We urged
that experiments be made with growing
cotton plants to determine whether by
topping them at a certain stage of
growth it might not be possible to bring
practically all the bolls to fruition at
the same time. If that could be done it
would be an easy step to the invention
of a machine that would reap cotton in
some such way as wheat is harvested,
and that another step would be the in-
vention of the thresher gin, a combina-
tion of a threshing machine and a gin.
We believe the thing is still possible
and that if it could be accomplished
all question of the South's ever being

unequal to the task of supplying the
bulk of raw cotton to the world would
be definitely settled.

SPINNERS OF THE WORLD VS. SOUTHERN COTTON GROWERS.

The president of a Southern cotton
mill in a letter to the MANUFACTURERS'
RECORD, referring to the article in our
last issue regarding a combination of
cotton spinners to bring about lower
prices for cotton, asks for more detailed
information about the matter and espe-
cially as to the plans of Mr. Macara,
president of the International Federa-
tion of Master Cotton Spinners and
Manufacturers' Association. Replying to
his enquiry as to where he can get "any
information as to any attempt to com-
bine the mill-owners of the United
States with the mill-owners of say Eng-
land and the Continent to cut down the
price of cotton," it may be said that
Mr. Macara, the chairman of the Inter-
national Federation of Master Cotton
Spinners and Manufacturers' Associa-
tion, in the interview with him from
which we quoted, which was published
in the *London Financial News* and was
republished in the *New York Journal of
Commerce* of November 27th, speaking
officially said:

The International Federation of Master
Cotton Spinners and Manufacturers' Asso-
ciation, which represents 95 per cent. of the
spindles throughout the world using Ameri-
can cotton.

Our correspondent will doubtless ac-
cept Mr. Macara's statement as to his
representing the spinners of Europe. As
to whether he represents the spinners
of America, it may be said that the
Manchester Guardian, September 25th,
1909, published the following:

"Arkwright Club votes curtailment desir-
able because of lack of margin between price
of cotton and goods. Ascertaining opinion
of American spinners generally. What will
International Federation probably do? Let-
ter following. Parsons, president."

Mr. Macara replied as follows:

"Received cable with greatest satisfaction.
Have wired it to members International
Committee strongly recommending continu-
ance of international short time. Meeting of
International Committee at Frankfurt 5th
October will deal with grave crisis. Eng-
land having decided continuance short time,
other countries are sure to follow. Macara."

Steps will of course be taken at once to
ascertain the opinion of the International
Committee on the international short-time
movement as to the feeling among cotton
spinners in the respective countries repre-
sented in order that the subject may be dis-
cussed at the forthcoming meeting.

The Arkwright Club is the largest organ-
ization of cotton spinners and manufacturers
in America. It was this body which at the
end of 1907 organized short time throughout
America and continued it almost entirely
during the year 1908.

We presume our correspondent will
accept this statement from the *Man-
chester Guardian* containing the cable
from the Arkwright Club, representing
mills of New England, to Mr. Macara,
and Mr. Macara's reply, as indicating
the relationship existing between the
cotton mills of New England and Mr.
Macara's International Federation in

this project of bringing about short time.

The *Textile Mercury*, of Manchester, of November 20th, publishes the following:

Mr. C. W. Macara, president of the International Cotton Federation, on Wednesday received the following cablegram from the secretary of the American Cotton Manufacturers' Association, Charlotte, N. C.:

"New York has cabled from Liverpool stating that English spinners have decided to work full time again. Please cable whether the report is correct. Bryant, Secretary."

To this Mr. Macara replied:

"Liverpool cable absolutely untrue. Believe reports on both sides of the Atlantic regarding countries abandoning short time invented and circulated by speculators. The short time already worked in England by spinners of American cotton is equivalent to five weeks' entire stoppage. A mass meeting will be held on Friday. Confidently expect that subsequent ballot will decide to continue the present running of 40 hours per week till the end of February, equivalent to further three weeks' total stoppage. Short time continues extensively throughout the world, and if carried out on the same scale as in England it would mean that at least 2,000,000 bales less American cotton would be consumed this season. Continuance of international short time on a large scale will assuredly end the present crisis, as in 1904. Macara."

The *Textile Mercury* of November 27th says:

The cablegram that Mr. Macara sent to Mr. L. N. Parker, president American Cotton Manufacturers' Association, on November 9 has brought the following interesting reply, written by Mr. Parker from Charlotte:

"I am constantly urging curtailment agreement. The mills engaged on heavy goods, particularly those exported to China, are curtailing largely, and as these are the largest consumers of cotton, it will make a considerable reduction in the consumption. The mills on lighter goods are not curtailing to the same extent. I can assure you that my own fear is that the troubles of the mills are going to come in the next six months, April to October next, and the only way that I can see to anticipate these troubles is by curtailment in advance, so as to meet that hand-to-mouth policy which buyers will pursue next spring and summer. It is, as I have said, very different to convince all the mills to this view, some of them being anxious to take the profit in hand. However, I can assure you that I shall continue earnestly to urge and bring every influence I have in favor of the curtailment movement, which I hope will become more and more effective."

"I estimate at the present time that the consumption of cotton in the Southern territory is 20 per cent. less than it was this time last year, though the mill takings, which are purely an estimate, do not show this result. Thanks for your valuable message."

As the American Cotton Manufacturers' Association to a large extent represents the cotton mills of the South, we take it for granted that our correspondent will take these cables passing between the secretary and the president of that association and Mr. Macara as identifying the cotton mill interests of the South to the extent of their membership in the American Cotton Manufacturers' Association, as combining with Mr. Macara's associates in England in the plan of short running time of cotton mills.

The *Textile Mercury* under date of November 27th, referring to the meeting of the American section of the International Federation of Master Cotton Spinners and Manufacturers' Association, and the action taken in regard to short time, said:

It is probable that the necessary 80 per cent. of the members' votes will be easily obtained. On the last occasion when such a vote was taken (a few weeks ago) 96 per cent. of the members were in favor of the curtailment. Mr. Macara referred to the unanimity that has been shown also on the Continent, where organization is so much more difficult than in Lancashire, owing to the great distances that separate employers, yet every country affiliated to the Interna-

tional Federation has practically supported the policy of short time. Mr. Macara also assured the meeting that reduction in hours is being carried on extensively in America. Speculators in raw cotton are still busy spreading reports that the talk about short time is mere "bluff"; fortunately, however, the false statement is having little effect, by reason of the strongly organized state of the International Federation. Mr. Macara is confident that if the present policy of the Federation be continued it will eventually break the strength of the speculators.

In an interview published in the *Manchester Guardian* Mr. Macara, referring to the short-time movement among the mills, is quoted as follows:

I sincerely hope that the efforts of the cotton spinners of the world will be successful. The short-time movement in 1904 had the effect of reducing the price of cotton from 9d. to 6d. a pound, though in that year everyone knew there was not enough cotton to run all the mills and that short time was an absolute necessity. * * * I submit, therefore, that if the cotton trade is to be rid of this terrible scourge brought about by speculators, all the cotton users must pull together. It is useless for individual employers or individual nations to act alone.

These statements we presume will satisfy our correspondent in regard to the fact that the cotton mills of the world are working in harmony in this reduction of time. As for the reasons for the reduction of time, Mr. Macara in the interview quoted said:

We have ample cotton, with the carry-over from last year, and by the continuance for a considerable period of the present short-time running we shall obtain that control of the trade which will insure cheap cotton and a steady market, and that is what we desire [italics ours]. * * * The short-time arrangements in Lancashire are precisely what they were when we fought and defeated the Sully corner; that is, the mills are running 40 hours instead of 55½ hours each week. It will be necessary to continue much longer. Our short-time campaign today on an international basis is on a much bigger scale than when with short time we broke the 1904 corner. * * * In view of the enormous enhancement in the price of cotton that body is unanimously of the opinion that it would be decided against the interest not only of the cotton trade, but also of the consuming public, if the present curtailment of production should be discontinued. By a resumption of full time, margins would be further reduced and exceedingly high prices of cotton would continue.

We repeat the quotation from the *London Financial News* when commenting on this remarkably frank statement of Mr. Macara it said:

This is a war campaign, and if the campaign be successful it will break down the American corners which so frequently come into aggressive being, and will tend largely to the end that many in the cotton trade aim at, namely, a plentiful supply of cotton at a reasonable price.

In view of the many statements coming from Mr. Macara as president of the International Federation, which he officially says represents 95 per cent. of the spindles of the world using American cotton, and in view of the telegrams from the president and secretary of the American Cotton Manufacturers' Association indicating the harmony of the members of that association with Mr. Macara's plans, and in view of the telegrams which passed between Mr. Macara and the Arkwright Club of Boston, representing the cotton mills of New England, the statement to the effect that there is a "world-wide combination against cotton growers" seems fully proven. It might be claimed on behalf of the mills that they are aiming this fight against speculators, but the men who are getting the benefit of these high prices are the cotton growers themselves. The interests of the speculators are as nothing compared with the interests of the millions of people interested in growing cotton. Perchance

a few speculators, taking advantage of a logical situation, may make a few million dollars, but cotton growers are making some hundreds of millions by present prices as compared with the cheap prices which Mr. Macara is struggling to obtain.

We are asked by the same correspondent as to whether we believe that Mr. Sully was working in the interests of Southern cotton growers or in the interests of a pool of speculators of which he was the leader, and also as to whether we believe that Mr. Macara and his associates defeated the Sully corner, but we quoted him as making that specific statement. He said the "short-time arrangements in Lancashire are precisely what they were when we fought and defeated the Sully corner."

The question as to whether Mr. Sully was working in the interests of speculators or in the interests of the cotton growers is immaterial to the discussion. The cotton growers think he worked to their very great advantage. At the time of the Sully corner the MANUFACTURERS' RECORD warned the South that the wild speculation in cotton which was sweeping over that section was going too far, and that it was scarcely possible for the prices then prevailing to hold. It likewise warned the people of the South against being led into that wild gambling in cotton which at that period seemed to take possession of the whole South.

The present conditions, whether due to speculators or not, are giving to the cotton growers the benefit of high prices. Usually high prices have come along late in the season, when the growers did not get much benefit of the advance. This time economic conditions in cotton growing and economic conditions in the business interests of the world have helped to bring about high prices for cotton, and a lot of speculators who, if they could make money on the "bear" side, would doubtless be just as great "bears" as they now are "bulls," merely taking advantage of a situation which they did not create, are possibly helping to maintain the market against the tremendous combination of the cotton mills of Europe and America. The policy of the cotton mills is radically wrong—dangerously so. The recent report of Secretary Wilson, of the United States Department of Agriculture, shows that in the last ten years the price of corn has increased more than 120 per cent., but there is no combination anywhere to bring about a lessening in the price of corn. The price of wheat has advanced in about the same proportion, but the flour millers of the country are not unitedly joined with the flour millers of Europe in fighting the price of wheat. We repeat the statement made last week as to the cotton mills and the price of cotton.

If a mill is so situated that by reason of adverse conditions of any kind it cannot manufacture cotton goods at the present price of cotton, and is not willing to take the business risk of continuing to run and store its goods until the market for cotton goods advances, then that individual mill is justified in shutting down or running on short time. That is wholly an individual matter. But for the cotton spinners of this country, who, broadly speaking, have reaped great profits in the past, the mills of New England and the mills of the South alike, to unite in the world-wide combination for the avowed purpose, as Mr. Macara puts it, of breaking down the price of cotton, is an unjustifiable combination against the interests of the producer.

PROSPECTS FOR MANY NEW RAILROADS.

If the records of the past month are to be considered as a basis for predictions, next year will be a busy one in the way of new railroad construction in the South and Southwest. Since the first of November there have been reported in the MANUFACTURERS' RECORD the incorporation or organization of at least a dozen railroad companies which propose to build between 2500 and 3000 miles of line. Some of these new plans appear to be of considerable importance. One of them is an enterprise which will cross portions of Virginia and West Virginia for a total of nearly 200 miles and perhaps more, developing rich mineral properties and incidentally luxuriant agricultural regions. Another combination is for lines in Alabama, Mississippi and Tennessee. A French syndicate is said to be concerned in this latter plan, which is being worked along lines looking to large business in connection with the Panama Canal. It provides for an east and west road, beginning at Birmingham, Ala., and running to Vicksburg, Miss. This is to be crossed by another line of the same system and extending from Memphis, Tenn., to Pascagoula, Miss. Thus the combined roads will reach the mineral and timber regions of two important States and will have valuable water terminals. Another big plan is for an electric railway east and west across the State of Missouri, connecting St. Louis and Kansas City by a road 250 miles long with at least one important branch. Then there is a large electric railway project on foot at Anderson, S. C., which has in view the construction of lines connecting Greenville, Spartanburg, Charlotte and other important points. This has a wealthy syndicate back of it, including the Messrs. Duke, of the American Tobacco Company, and developments of the plan are awaited with deep interest by people in the section to be benefited.

Some important results are also expected to follow the reorganization of the Mobile, Jackson, Kansas City Railroad, which is to have a new name—the New Orleans, Mobile & Chicago. It is believed now that the long projected extension to New Orleans will be constructed and that the line to the north will reach the Ohio River via Jackson, Tenn., getting connection there for Chicago. This road runs through Mississippi for the greater part of its route and parallels the route selected for the Memphis and Pascagoula project of the reported foreign syndicate. It traverses a rich timber territory and has a gulf outlet at Mobile, while if the extension is built to New Orleans it will enjoy the advantage of another seaport.

Much of the new mileage proposed is for Texas and Oklahoma. In both of these States the demand for new railroads is continuous and growing, the rapid settlement of the country rendering it necessary that adequate transportation facilities shall be provided to handle the output of the agriculturalists and stock-raisers. Notwithstanding that some of the large railroad systems, especially the Santa Fe, the Rock Island and the Frisco, have already taken steps to meet the demand for railroads, the extent of the territory to be served is so great that new enterprises are necessary to provide for the future, although it is to be expected that some of them at least will become in time part of the great systems. The more tolerant attitude toward railroads displayed by the Texas Legislature causes hope that the rigid antagonism

to railroad mergers in Oklahoma will be softened and that more development in that State will be undertaken by the existing companies, which are now averse to extending therein; in fact, it is impossible to obtain capital for investment under such legislative conditions. When the people of the State realize that the position assumed by their legislative representatives has been too rigorous they will insist upon the revision of laws in such a manner as to offer inducements for investors to give aid to the railroads desiring to make extensions. Otherwise the rapid development of the State, which it is natural to expect, will be hindered and taxable values will be kept down in consequence until such time as those in control awake to a realization of the facts.

Meanwhile other States nearby are witnessing much enterprise for the building of new lines and the development of unimproved territory. Louisiana, Arkansas and Missouri are scenes of railroad activity, while in Oklahoma such business is comparatively stagnant and will continue so until there is a change of attitude on the part of the authorities. Prominent local men interested in the welfare of their State have taken up the subject and are urging moderation with the prospect that, aided by the more reasonable attitude displayed in Texas, reform may come about.

RESULTS OF WORK FOR THE SOUTH.

One of the men who has been most busy for several years past in practical work for the development of the South is Capt. J. F. Merry, of Manchester, Iowa, general immigration agent of the Illinois Central Railroad. A letter just received from him by the MANUFACTURERS' RECORD indicates that he is busier than ever. One of the reasons for this business and at the same time a result of earlier business on his part appears in Captain Merry's statement to us:

Never since I have been connected with the Illinois Central Railroad Co. has there been such a widespread interest in our Southern territory as now. We have passed the experimental stage, and people are now selling their northern farms and moving to Tennessee, Alabama, Mississippi and Louisiana as they do to South Dakota, Montana and the Far West, and I confidently believe 1910 will be the best year we have ever had in the actual location of farmers in our Southern territory.

The share of the Illinois Central Railroad is this southward movement of Northern farmers is the logical fruit of the systematic and long sustained work on a business basis that Captain Merry has been doing for immigration to the South. That is the only kind of work that counts. It is work from the ground up by men equipped with knowledge and ability. It means going after the desired immigrant and bringing him in.

THE COTTON MOVEMENT.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first three months of the season was 5,802,341 bales, a decrease under the same period last year of 544,368 bales. The exports were 3,031,495 bales, a decrease of 112,500 bales. The takings were, by Northern spinners, 820,221 bales, a decrease of 182,901 bales; by Southern spinners, 696,963 bales, an increase of 11,723 bales.

During 94 days of the season the movement was 5,942,485 bales, a decrease under the same period last year of 710,023 bales.

The exports were 3,105,245 bales, a decrease of 166,815 bales. The takings were, by Northern spinners, 866,335 bales, a decrease of 199,915 bales; by Southern spinners, 719,048 bales, an increase of 8151 bales.

SOUTHERN PROGRESS BLUE BOOK.

What the South has in material resources in comparison with the resources of this country and of others, what it has accomplished in material development as compared with the progress of the United States, condensed but comprehensively presented, will be found in the "Annual Blue Book of Southern Progress for 1909," just issued by the MANUFACTURERS' RECORD, more thorough and complete than in any publication ever issued. In this "Blue Book of Southern Progress" the whole story of the material South is statistically epitomized. By States and by sections will be found almost every fact of essential importance in studying what the South has, what it is and what it is to do. Here are facts showing that during the last 10 years the cotton crop of the South has exceeded in value by \$1,472,980,300 the total production of all the gold and silver mines of the world for the same period, and that during the same decade the value of the cotton exported to Europe has exceeded the total value of all the gold production of the world during that period, notwithstanding the marvelous expansion in gold output of recent years. The wonderful advance in agriculture, which has carried the total value of the farm products of the South to nearly \$100,000,000 in excess of the total value of the agricultural production of the United States in 1890; the industrial advance which shows how the South is now making about as much pig-iron as the United States made in 1880; how it is mining twice as much bituminous coal as the United States then mined; the growth in railroad mileage, in lumbering, in cotton manufacturing, in exports and imports, and the foundation of raw materials on which to build for the future, are all given with great detail.

This pamphlet of 64 pages is the most compact and convenient source of information about the South ever given to the public. It cannot fail to appeal strongly to all men of affairs who want to know promptly and fully the condensed facts about the South.

For more than a quarter of a century the MANUFACTURERS' RECORD has published as quickly as they have become accessible the magnificent facts of Southern achievement upon which these latest and most up-to-date statistics are based, and has in addition issued from time to time more or less elaborate summaries, which have carried to the four quarters of civilization the knowledge about the South which has been so effective in hastening its material development. Coincidentally the MANUFACTURERS' RECORD has furnished in printed matter or in personal correspondence to thousands of statesmen, educators, business men, newspapers and magazines similar material for orations, essays, editorials and other articles, in the desire to neglect no opportunity or means of furthering the work and keeping the South and the rest of the world informed of the vast possibilities within the area stretching from Maryland to Texas.

This pamphlet contains the cream of all these efforts. As indicative of the spirit in which the MANUFACTURERS' RECORD has carried on this work, it is distributing at its own expense 30,000 copies to leading business men, bankers, merchants and manufacturers in the North, South and West, in order to awaken them to a full realization of the South's potentialities. Copies of the "Annual Blue Book of Southern Progress" can be had of the MANUFACTURERS' RECORD of Baltimore for 25 cents each.

RIVERS AND HARBORS.

Hundreds of men from all parts of the country, especially from the South and Southwest, are in Washington this week to attend the sixth convention of the National Rivers and Harbors Congress, admirably described as follows:

"The National Rivers and Harbors Congress is the direct representative of all sections of the United States that have a meritorious claim for the improvement of a natural or artificial waterway. It advocates a waterway policy, not a waterway project; a policy that will provide regular and adequate appropriations of not less than \$50,000,000 annually to be spent upon the deserving waterways of the country, without regard to any special section or special project. It advocates, to furnish the funds, the authorization of bonds by the Government to the amount of \$500,000,000, to be sold from time to time in such quantities as may be necessary, the proceeds of same to be used exclusively in payment for such river and harbor work as shall be authorized by the American Congress, the provisions for the issuance of said bonds to be similar to those authorizing bonds for the Panama Canal."

President Taft, Congressman Joseph E. Ransdell, Count J. H. von Bernstorff, German ambassador to the United States; President Ransdell, Senator George E. Chamberlain of Oregon, Governor H. S. Hadley of Missouri, Governor F. B. Weeks of Connecticut, Representative John D. Zell of Pennsylvania, Representative Geo. Burgess of Texas, Governor Judson Harmon of Ohio, Secretary of Commerce and Labor Nagel, Senator Burton of Ohio, former Governor Benton McMillan of Tennessee, Representative J. Hampton Moore of Pennsylvania, Governor John Burke of North Dakota, Herbert Knox Smith, United States Commissioner of Corporations; Governor A. O. Eberhardt of Minnesota, Governor M. F. Ansel of South Carolina and Governor John Small of North Carolina are among the speakers on the program of the congress.

POST CARD PUBLICITY.

One of the most attractive forms of advertising that has recently come under our notice is a series of post cards circulated by the Louisiana Meadows Co. of New Orleans, showing the wonderful results of reclamation of alluvial prairie lands in the vicinity of that city. The post cards give excellent illustrations of crops of corn, onions, cotton, cane, rice, cabbages, peppermint and other products luxuriantly grown on the reclaimed land; of fat cattle; of the ease of water transportation by means of gasoline boats and barges; of the simple methods of drainage, and of the attractive homes which have risen where a few months ago there was but a stretch of waste lands. A study of these post cards suggests the immense wealth that will annually come to Louisiana when all of its 7,000,000 acres of wet lands have been brought back to intensive cultivation. Holland will not compare with Louisiana then.

SAN ANTONIO.

The Chamber of Commerce of San Antonio, Tex., Mr. John B. Carrington, secretary, has published an artistic fully illustrated pamphlet of 50 pages telling about San Antonio and its attractions for the homeseeker and investor. The population of the city is 110,000, an increase of more than 8000 since the first of this year. Its 23 parks and plazas aggregate 349 acres, and within its 36 square miles are 425 miles of streets, 79 miles of sewers, 136 miles of water mains and 70 miles of street railway. The assessed value of property in the city has risen from \$38,

305,125 in 1906-1907 to \$61,705,785 in 1908-1909, and in the same period the values represented in building permits have increased from \$1,397,100 to \$4,230,526.

FIZZ! BOOM!! A—H!!!

Delegates were described as sitting in the "Southern Commercial Congress" from every State in Dixie. What had been delegated to them was not mentioned; nor were their names given. But they heard words of wisdom from "distinguished" Southerners, of fame reaching from Dan even unto Beersheba, of profound wisdom that had stormed the very innermost citadels of knowledge and experience of the South and had scaled the very-most heights and depths of facts about the South that nobody ever heard before, nobody save deaf, dumb and blind folks.

Perhaps the most startling piece of new information, almost reeking with the afflatus of prophecy, came, of course, from that son of the South whose career is blazoned upon the brilliant pages of three centuries of Southern history—if you don't mind what you say.

And he said:

In the development of Southern ports will come inevitably North and South lines through this country.

Sad, sad, sad. Everybody's had the thing mixed all along up to this time. The Southern Railway, the Seaboard Air Line, the Atlantic Coast Line, the Illinois Central Railroad and the Kansas City Southern Railway have all this time been running east and west. The wheat and corn from Northwestern grain fields have been, during the past 10 years, traveling to New Orleans and Galveston on the eastern coast of the United States, while health-seekers of Boston, New York and Philadelphia have been traveling due west to the delights of Florida. Gee!

From one thoroughly identified, too, in history and personal endeavor with all that has made for the best in the South came sound doctrine.

And he said:

It is time the States availed themselves of all their own power before coming to the Government.

Was that a tiny, gentle suggestion bearing upon the one-million-dollar endowment of the "Southern Architectural Monument" to nestle 25 stories above the eaves of the Government?

Then there was Honorable James Bryce, Minister Plenipotentiary and Envoy Extraordinary from the Court of St. James. He has found that the South is worth studying and can be made a drawing card for divers kinds of Southern conventions, congresses, parliaments, convocations and symposiums.

And he said:

The three great problems of the South has to devote herself to are transportation, the application of science to agriculture and general education.

Probably the \$50,000,000 General Education Board Trust echoing Mr. Bryce's appearance at the Memphis Conference for Education in the South. Selah!

Just as plenipotentiary and just as extraordinary a Southerner, but for France and not for Great Britain, is Monsieur J. J. Jessurand. He knows that the South has not only cotton, "but wealth of minerals as well."

And he said:

Even were the problems that confront the South difficult, the people of the South would solve them.

Bet your bottom dollar on that. And they have been doing it for, lo, these many years. They will even solve the problem of the "Southern Commercial Congress," which consists in trying to demonstrate why the South should support a salaried job in Washington, said demonstration not having been made in spite of the trials

and tribulations and other performances of more than a year.

Other international Southerners were represented by T. Littlejohn Feild, late of North Carolina, more late of London, and described as representing American shipping interests abroad. It was to be expected that American shipping interests abroad would ultimately emerge in the Congress.

And he said:

The gentle rains of time have beaten down the furrows, and green pastures grow on our once barren fields. The healing balm of brotherly love has at last cured the wounds of the past, and you, the leading men of the South, stand forth today as loyal citizens of the United States.

At last, at last! Reunited again for the thousandth and steenth time. Will the leader of the orchestra please play something tender and sweet and low in minor chord, something like "Could you come back to me, Douglas, Douglas," "In the Gloaming," or "My Bonnie Lies Over the Ocean?"

T. Littlejohn Feild wants a big gateway in the Gulf of Mexico, where "the peoples of all nations will be coming in and going out." And around such ports as Trieste, Naples, Messina, are hordes of peoples just waiting for a chance to get on vessels owned by steamship interests and to pour into that gateway, to get in, but never to be gotten out.

The obliteration of "only an invisible sectional line" by T. Littlejohn Feild became so pathetically tense that diversion was pressingly necessary. Claude N. appeared with his magic lantern.

And he said:

Will the South rise to meet its great opportunity?

Gently, gently, Claude. Quit your shoving. She's been rising ever since long before you became a voter. But your inspiring words will assuredly compel her to tighten the stays of her aegis and to gird up the panoply of her loins, to buckle on her aeroplanes, and, discarding rats, puffs and every other weight and hindrance, to rise with wide-open, unblinking eyes into the empyrean, face to face with Phoebus. She won't even forget the palladium of our liberties.

And the newspaper reporter said:

Almost wearily the audience turned from this interesting talk upon the Panama canal to one equally illuminating and suggestive, upon the development of rural road building in the South.

How unkind of the audience to "wearily" turn. Was it really as bad as that?

Illuminating, because of a magic lantern in that, too, J. E. Pennybacker, Jr., another eminent Southerner, doing the talking.

And he said:

The earth road, by reason of its tremendous mileage, will always be with us.

To be sure, to be sure. Our only salvation from earth roads is in getting off the earth, and where the wicked cease from troubling and the "Southern Commercial Congress" is at rest. And the ages to come will be inclined to repudiate some of those individuals who, in the beginning of the twentieth century, aspired and undertook to be their ancestors.

FOR A MODEL FARM.

The Chamber of Commerce of Savannah, Ga., is planning for the establishment by Chatham county of a model farm to be conducted upon a commercial basis. The plan looks to a form of sufficient acreage to include every variety of soil in the county which will be conducted with the central idea of raising special crops for profit. The operations of the farm will be designed to prove to prospective homeseekers and investors that first-class products can be raised in Chatham county at first-class profits.

TUCK—CHRISTMAS.

With many, many folks, some of them with plenty of money, some of them with but little for holiday purposes, two words, Tuck and Christmas, have become almost synonymous. It is a case of first aid and of last aid to the holiday shopper, the solution of many vexing problems about selecting pleasing things. Long experience, for the foundations were laid by Raphael Tuck in London in 1866, has given the Raphael Tuck & Sons Co., Ltd., the ability to size up manifold wants, to keep abreast of the demands and to be in a position to meet them to the satisfaction of everybody concerned. Constantly enlarging the scope of its operations, the company maintains its reputation for novelty of ideas, beauty of design and perfection of reproduction in its publications. This year's output embodies all the fundamentals upon which the success of the company rests, and offers a variety appealing to almost any kind of an artistic mind. Its calendars, simple or superb, in leaflet, booklet or panel form, are most attractive, and many of the larger ones bear reproductions of masterpieces in art worthy of permanent framing when the year's service is ended. Many novelties for Christmas and New Year's, including varied lines of post cards, illuminated gift books and decorative souvenirs, offer wide range of choice for present-makers among grown folks, while the juveniles, including, of course, "Father Tuck's Annual," with its work from clever writers and artists, together with a new line of toy books, are prepared for the little ones. In this country the Tuck headquarters are at 122 and 124 Fifth avenue, New York, but the business has grown so during the past 33 years that there are branches of the business in London, Paris, Berlin and Montreal.

CLARKSBURG.*

The Gateway to West Virginia's Natural Resources.

By C. EARLE ISRAEL.

To the manufacturer seeking a location equally accessible to supplies of raw material and to the best markets for the finished product, a location where cheap fuel of the finest quality abounds, and where labor conditions are unsurpassed, Clarksburg offers many advantages, varied and unique.

Situated on the main line of the Baltimore & Ohio Railroad, Clarksburg, with a population estimated at 15,000, is within a few hours' travel of all the important cities of the East and Middle West. A line of road extending into the interior of the State at once places Clarksburg in close proximity to the "Pittsburg district" and opens up the unlimited resources of central West Virginia, while another line, running northwestward, provides quick and easy access to Cleveland and other lake ports, making Clarksburg the most centrally located city in the entire State. Possessing this unusual number of railroads, with sidings extending to every factory, combined with the very lowest freight rates, Clarksburg offers shipping facilities unexcelled by any city in this section.

Clarksburg is located in the heart of the largest natural-gas field in the world; consequently, the gas rate to manufacturers is exceptionally low, four cents per 1000 cubic feet. The quality is of the very best, the supply is pronounced by experts to be practically inexhaustible, and when the ease of handling is considered, four-cent gas is a most attractive proposition to those who require fuel in quantity.

Clarksburg is surrounded by vast fields

*An article winning the \$100 prize offered by the Watts, Lamberd Company of Clarksburg for the best presentation of Clarksburg's advantages and opportunities as a manufacturing city.

of coal. If in the future the gas supply should become exhausted (a remote possibility), the great abundance of coal will keep Clarksburg in the front rank as a city of cheap fuel. This coal can be secured in large quantities at 75 cents per ton, which is equivalent to natural gas at four cents per 1000 cubic feet.

Harrison county, of which Clarksburg is the county-seat, leads the State in the production of petroleum, thus adding materially to Clarksburg's population and wealth.

Vast forests of splendid timber abound in the immediate vicinity, much of which is excellent hardwood. These forests are reached by direct railroad lines, and immense tracts are yet undeveloped. For this reason Clarksburg offers exceptional opportunities to all manufacturers who make use of wood.

Fire and pottery clay and glass sand of good quality (99 per cent. silica) are found at a number of points in the vicinity of Clarksburg, and the manufacture of glass is at present the leading industry, as there are eight factories in operation, employing nearly 1400 men, with an annual payroll of almost \$1,000,000. The other industries of Clarksburg are many.

A single manufacturing plant, the Phillips sheet and tinplate mill, employs nearly 1000 people, with an annual payroll of over \$600,000, and the output of this factory, running into the thousands of tons every year, is distributed to all parts of the United States.

One of the largest plants for the manufacture of zinc spelter in the United States was recently attracted to this city by the abundant supply of cheap fuel, while there are woodworking companies, carbon factories, flouring mills and many other industries, making Clarksburg the busiest city in this section of West Virginia.

Clarksburg ranks second in the State in its wholesale business, and in this connection it is well to note that one of the leading wholesale houses is at present erecting a \$200,000 building in which to conduct its business.

Regarding the financial situation in Clarksburg, there are seven banks, whose total resources as published at the close of business November 16, 1909, amount to \$7,598,554.65, and with deposits aggregating \$5,544,002.87. Each of these institutions is well and carefully managed, and is courteous and accommodating in its treatment of all customers.

The only objectionable feature of Clarksburg is the inadequate water supply and distributing system, which for the past few years has been left far behind in the rapid growth of the city in extent and population. Within the past three months, however, the progressive citizens voted favorably on an issue of bonds amounting to \$270,000, most of which will be used in great improvements to the water system, and the remainder in paving and sewerage extensions.

The climate is healthful, average temperature being 65 to 70 degrees, making it an ideal location for a home. In addition to this great natural advantage, its enterprising citizens have provided miles of paved streets, well lighted by electricity, unexcelled street-car service, with interurban lines in three directions, and a public-school system second to none in the entire State, with seven well constructed and well equipped school buildings.

Clarksburg's hotels and business blocks would be a credit to many a larger and wealthier city. The Hotel Waldo is noted throughout the South as one of the largest and best-appointed hostleries in the country, while the new Empire Building and the Goff Building (in process of erection)

are stately in appearance and convenient in arrangement.

There are churches of almost every denomination, provided with large and comfortable houses of worship, one of which (the new Methodist Episcopal, just completed) is a magnificent structure, by far the best in the State.

To sum up, Clarksburg, because of its location in the center of the great gas, coal and oil fields, its proximity to timber, glass sand, pottery clay and various other raw materials, its exceptional shipping facilities and nearness to the principal Eastern and Western markets, is an ideal city, and justly claims the attention of the manufacturer who desires to turn out his product at the minimum cost.

Clarksburg, W. Va., November 27.

IN A FERTILE PARISH.

Agricultural Development Around Mansfield.

[Special Cor. Manufacturers' Record.]

Mansfield, La., December 1.

Mansfield, a growing town of 3000 inhabitants, is the seat of De Soto parish, one of the hill counties of Louisiana adjoining Texas and separated by only one parish from Arkansas. The city lies 35 miles south of Shreveport, and with that city consumes more than is grown in the surrounding country. The parish is crossed by three trunk lines of railroad, which have some branch lines, and the main lines run from Shreveport to Houston, from New Orleans to El Paso, and from Port Arthur to Kansas City. In the 17 towns of the parish are good schools and churches, and in some localities are township high schools, to which the children are carried in wagons hired by the school board. Funds have been provided for building 150 miles of first-class roads in the parish. The soil ranges from a stiff rich red clay on the eastern edge of the parish to a dark gray sandy loam, the top soil of much of the rolling hill section underlaid by a red clay. The climate is mild and the health of this section of Louisiana is splendid, the annual death rate among the whites not exceeding eight in each 1000 inhabitants.

Several thousand head of cattle are shipped from the parish each year, and pasturage is abundant, making this section a natural stock country. There is a demand for poultry and dairy products, staple crops are raised and there are splendid opportunities for truck farming. Irish potatoes, for instance, are shipped from here by the trainloads as early as May 1, and peanuts or other crops can be harvested in time to plant a full crop of Irish potatoes on the same land. Winter gardens can be grown and the table be supplied all winter with fresh vegetables. Greater and greater attention is being given to the culture of peanuts, figs and pecans.

The parish is underlaid by a great deposit of lignite, and there are many indications of oil.

Up to a few years ago this was a one-crop country, but the boll-weevil has interfered with the cotton crop; conditions are changing, more food crops are being grown and the farmers who have settled here from the North are reaping a harvest.

W. H. HARRISON, JR.

The latest issue of "K. C. S. Current Events" contains a mass of interesting information about recent developments along the line of the Kansas City Southern Railway discussing such subjects as the Joplin zinc and lead district, the fruit crop of 1909, truck-growing and rice-growing in Louisiana, mineral deposits of Western Arkansas, Gulf coast winter resorts and additions to industries in towns along the line.

THE COAL RESOURCES OF WEST TEXAS.*

WM. B. PHILLIPS, Director of the Bureau of Economic Geology, University of Texas, Austin.

There are two things that are absolutely essential for the industrial development of a nation or a State—water and fuel. Of these two, the more important is fuel. We may be able to accomplish our ends with a minimum of water, but fuel we must have, whether for the ordinary domestic purposes or for the larger affairs of industry and trade. The growth of this nation may be accurately measured by the increase in the production of mineral fuel. It is a trade barometer that never lies. During the last 28 years we have seen the most wonderful development of the American nation, and if we examine into the production of coal during this period we shall see to what extent it may be relied upon to provide an accurate index of this tremendous prosperity. In the year 1880 the total coal production of the United States was 71,481,570 tons, while in the year 1908 it reached the stupendous amount of 415,812,698 tons, an increase of 33,695 tons a day for the entire period of 10,220 days. For each ton of coal that was mined in 1880 we mined nearly six tons in 1908.

Rapid as has been the progress in Texas during this period in very many respects, we have not kept pace in the production of coal. It was not until the year 1883 that we reached a production of 100,000 tons a year, but during the 25 years following our total production amounted to 16,490,718 tons, valued at \$28,391,760. The entire production of coal (and lignite) in Texas from the earliest records to the close of the year 1908 is about the same as the production of the country at large in the year 1861, about one-tenth of what it was in 1890, and about one-seventeenth of what it was in 1900. In comparison with the other States we are steadily losing ground, although gaining each year over the production of the preceding year. The production and value of the coal (and lignite) in Texas since 1883 is given in the following table:

Production and Value of Texas Coal.*

Year.	Tons.	Value.
1883.....	100,000	\$175,000
1884.....	125,000	200,000
1885.....	150,000	250,000
1886.....	100,180	185,000
1887.....	75,000	150,000
1888.....	90,000	184,500
1889.....	128,216	240,617
1890.....	184,440	465,900
1891.....	172,100	412,300
1892.....	245,903	569,333
1893.....	302,296	688,407
1894.....	420,848	976,458
1895.....	484,959	1,205,000
1896.....	544,015	896,251
1897.....	639,341	972,222
1898.....	686,734	1,139,763
1899.....	883,832	1,334,895
1900.....	968,373	1,581,914
1901.....	1,107,953	1,907,024
1902.....	901,912	1,477,245
1903.....	928,759	1,505,383
1904.....	1,185,944	1,985,636
1905.....	1,200,684	1,963,558
1906.....	1,312,873	2,178,901
1907.....	1,648,069	2,778,811
1908.....	1,895,377	3,419,481
	16,490,718	\$28,391,760

*Statistics of the United States Geological Survey.

Since the year 1883 we have produced 16,490,718 tons of coal, valued at \$28,391,760. Where was this coal produced? The returns for 1908 show that the following counties produced bituminous coal: Erath, Maverick, Palo Pinto, Parker, Webb, Wise and Young. The output from these counties was 1,047,407 tons, valued at \$2,580,991.

In the year 1908 the following counties produced lignite: Bastrop, Fayette, Hopkins, Houston, Leon, Medina, Milam, Robertson and Wood.

The output from these counties was 847,970 tons, valued at \$838,490. The total production in 1908 of coal and lignite

*From an address delivered before the West Texas Development Congress at San Angelo, December 6, 1909.

was 1,895,377 tons, valued at \$3,419,481, the largest output and the highest value during our history. There were employed in this industry in 1908, 4400 men.

What bearing have these statistics on the purposes of this congress? We have met here to discuss ways and means for developing West Texas, and the development of West Texas is the development of North Texas and East Texas and South Texas. The progress of one part of Texas is the progress of all of Texas, from Texarkana to El Paso, and from Texline to Sabine Pass, one for all and all for one.

In so far as concerns this paper and our present purpose we may, I think, confine ourselves to the bituminous coal area within reach of San Angelo, i. e., the counties of Erath, Palo Pinto, Parker, Wise, Young, etc. It is not likely that under present transportation rates the lignites could come into use here or that the bituminous coals of Maverick and Webb counties are available. In speaking of San Angelo I use the term as commensurate with West Texas generally. I am not sure in my own mind as to what is the proper area to be embraced in the term West Texas; opinions on this subject may and doubtless do differ materially, but in order to have some basis for these remarks, I am inclined to take the term as signifying in a general way the area embraced in the following boundaries: The north line the 33d degree of north latitude, running through the southern part of the counties of Yoakum, Terry, Linn, Garza, Kent, Stonewall, Haskell and Throckmorton; the east line the 90th degree of west longitude, running through Cisco, in Eastland county, and Brownwood, in Brownwood county; the south line the 30th degree of north latitude, running through the counties of Kerr, Edwards, Val Verde and Terrell, inclusive, also of those portions of Terrell, Brewster and Presidio which are south of this line; the west line would extend to El Paso. In this area there would be the following counties: Parts of Yoakum, Terry, Linn, Garza, Kent, Stonewall, Haskell, Throckmorton, Stephens, Eastland, Brown, San Saba, Gillespie, Kerr and Val Verde (area 3774 square miles, population in 1900, 18,650), and the following counties entire: Gaines, Dawson, Borden, Scurry, Fisher, Jones, Shackelford, Callahan, Coleman, McCulloch, Mason (very nearly), Kimball, Sutton, Crockett, Menard, Schleicher, Concho, Tom Green, Runnels, Taylor, Coke, Nolan, Irion, Sterling, Mitchell, Reagan, Glasscock, Howard, Upton, Midland, Martin, Crane, Ector, Andrews, Ward, Winkler, Loving, Terrell, Pecos, Reeves, Brewster, Presidio, Jeff Davis and El Paso (area 71,087 square miles, population in 1900, 126,919). The area embraced in these counties, and parts of counties, is 74,861 square miles, and the population in 1900 was 145,569, and may safely be taken now at 300,000.

The main railroads traversing this area are the Texas & Pacific, the Texas Central, the Gulf, Colorado & Santa Fe, the Fort Worth & Rio Grande, the Kansas City, Mexico & Orient, the Wichita Valley, the Pecos River, the Roscoe, Snyder & Pacific and the Southern Pacific. The total railroad mileage at present is 1891 miles, equivalent to about 40 miles per 1000 square miles of area and 6.6 miles per 1000 inhabitants. The railroads that enter the coal fields are the following: Texas & Pacific, Fort Worth & Rio Grande, Texas Central, Gulf, Colorado & Santa Fe. There are two roads that penetrate excellent coal areas, but as they are beyond

the limits assigned for the purposes of this paper, they are not here included. They are the Wichita Falls & Southern, running from Wichita Falls south into Young county, and the Chicago, Rock Island & Gulf, running from Bridgeport to Graham.

The counties in Texas that may be regarded as coal counties, within the scope of this paper, are the following: Montague, Clay, Wise, Jack, Parker, Palo Pinto, Young, Stephens, Erath, Eastland, Comanche, Brown, Coleman, Shackelford and Callahan, and parts of Hood, San Saba and McCulloch. For the present, however, actual operations are confined to the counties of Erath, Palo Pinto, Parker, Wise and Young. The total area represented by all of the counties mentioned is 15,229 square miles, but all of this, of course, cannot be taken as commercial territory. Perhaps it would be within bounds to say that about 7000 square miles would represent the area within which workable seams of coal may be found.

These estimates of Mr. M. R. Campbell of the United States Geological Survey show that the known workable coal in Texas occurs over an area of 8200 square miles, and that there are, in addition, 5300 square miles which may contain workable seams. This estimate includes the coal fields of Webb and Maverick counties, on the Rio Grande.

By far the greater territory in Texas occupied by workable seams of coal is within easy reach of West Texas. If we take San Angelo as the center of the industrial area, the farthest northeastern limit of the coal fields is but 216 miles distant, while the center of the coal fields is but 150 miles distant. In other words, the transportation of coal from the center of the field would involve a haulage of 150 to 200 miles in order to reach not only San Angelo and West Texas generally, but the most populous parts of the State as well. If we take Thurber as a center and draw a circle of 150 miles radius, it would extend on the north to a point 36 miles beyond the Red River; on the northeast to beyond Greenville, Hunt county; on the east to about the center of Van Zandt county; on the southeast to Jewett, Leon county; on the south to about the center of Blanco county; on the southwest to the center of Kimball county; on the west to the west line of Mitchell county, and on the northwest to the center of Dickens county. It would include such cities and

towns as Fort Worth, Dallas, Sherman, Gainesville, Kaufman, Greenville, Hillsboro, Waco, Temple, Belton, Corsicana, Cameron, Austin, Brady, Brownwood, Abilene, Sweetwater and San Angelo. It would embrace the heart of Texas.

The coal fields to which West Texas must look for cheap fuel are well provided with railroads. An examination of the map issued by the Texas Railroad Commission, and the best map of Texas which we have, shows that in so far as concerns the transportation problem, one could recommend not more than two additional roads. The Chicago, Rock Island & Gulf should be extended from Graham, Young county, to Stamford, Jones county, by way of Crystal Falls, Stephens county, and Old Fort Griffin, Shackelford county, thus tapping the coals that lie along and adjacent to the Clear Fork of the Brazos River. The additional construction would be about 90 miles. Or, the Wichita Falls & Southern Railroad, running from Wichita Falls into Young county, should be extended to Cisco and Brownwood by way of Crystal Falls and Breckenridge, Stephens county, a railroad distance of about 125 miles.

Either of these roads would penetrate an undeveloped coal field of good promise, namely, around Crystal Falls, while the road from Graham to Stamford would have the additional advantage of tapping that portion of the field lying between Crystal Falls and Old Fort Griffin. It would also come into close touch with the Kansas City, Mexico & Orient Railway, destined to become a great trunk line from Kansas City to the Gulf of California. It will need a great deal of coal itself, and will traverse a region of vast possibilities. In Texas it does not touch any coal field, but is some 60 miles west of any known coal of commercial importance.

The construction of 225 miles of railroad would open up practically all of the undeveloped coal fields in Texas, and would unite the coal-carrying roads into a harmonious system, reaching into every part of the State, and capable of supplying a much larger proportion of our domestic and industrial fuel than is now the case. In the development of the adjacent coal fields West Texas is vitally concerned. It is upon coal of native origin that its hopes and plans must depend, for there can be no real or lasting progress without regular supplies of cheap and efficient fuel.

DRAINING THE EVERGLADES OF FLORIDA.

[Special Correspondence Manufacturers' Record.]

Miami, Fla., December 4.

The impression seems to have obtained in many quarters that the work of draining the Everglades has in some measure broadened in scope and increased in magnitude because the Trustees of the Internal Improvement Fund of the State of Florida have advertised for bids on the excavation of drainage canals.

These advertisements were sent out recently, and bids will be received until noon of December 22. The call is, briefly, for bids for the opening of 300 miles of drainage canals from 40 to 60 feet wide and from 6 to 10 feet deep. The usual reservations are made as to the rejection of any or all bids, and notice is served that the contractor will be required to give bond for the performance of the work within a given time.

Great publicity has been given to the determination of the trustees to let the work of drainage to contractors, and it is perhaps on account of this that persons who have not kept in touch with the progress of this work, which was begun in 1906, have gained the idea that scope of the undertaking is enlarged. Such is not

the case. The enterprise is no greater now, nor as great, for that matter, than it has been from the beginning, but the letting of the work to contractors is a radical departure from the policy heretofore pursued.

In a previous article written for the MANUFACTURERS' RECORD I reviewed the work from its beginning, so I shall make but a passing reference to that part of it now. When the enterprise was begun by Governor N. B. Broward with one dredge in 1906, the failure of the project was freely predicted, and there were many to declare it unfeasible and forecast failure. It was a bold move, for at that time the Trustees of the Internal Improvement Fund, who are the Governor, the Comptroller, the Attorney-General, the Treasurer and the Commissioner of Agriculture, had but scant funds with which to proceed. One dredge was constructed and put to work in 1906, another got to work the following year, and two others were constructed the latter part of 1908 and began excavating the first of the present year. It was necessary from the beginning to prove the worth of the Everglades lands,

and this was done by the first dredge. It required patience and perseverance through the most disheartening lack of public sympathy, but Governor Broward had the faith that moves mountains and in the summer of 1908, which was the last year of his administration, he succeeded in selling 500,000 acres of the undrained lands at \$2 an acre, which gave the trustees a drainage fund of \$1,000,000. Other smaller contracts were made for a sum aggregating about \$100,000 additional. Capital had recognized the value of the lands, and this was the foundation which gave the trustees a firm footing and attracted such attention to the section that the board is now able to step out with the assurance that ample funds will be forthcoming from the sale of the lands remaining at a largely increased price over that at which the undrained lands were sold in order to prove the worth of the lands and create a demand for them. The wisdom of the contract made by Governor Broward for the drainage of the lands with R. J. Bolles, purchaser of the 500,000 acres, is now recognized. The lands sold to Mr. Bolles were in alternate sections, the State reserving each alternate section, so that the lands of the State are being drained as fast as the lands owned by Mr. Bolles. The benefit accruing to one in the matter of pushing the work is to the good also of the other. Soon after this contract was made Mr. Bolles, through a sales company, began the sale of 12,000 farms in this undrained territory. To this sale was allotted 180,000 acres. The greater part of the acreage was divided into 10-acre farms, and the price put upon these small farms was \$240 each, or \$24 an acre. The lands have been sold in the West, the installment plan of payment being followed. The purchasers buy a contract and pay \$10 a month on it. The contracts have been sold subject to drainage. The sale was opened in March of the present year, and under the terms of the contract the first of the lands sold will not be paid for until March of 1911. It is thought, and the land companies have good reasons to make their calculations thus, that the land will be entirely free of water by the time the land is paid for. The drainage has proceeded so satisfactorily so far that the value of the land for cropping purposes has been amply demonstrated, and there is such a demand that the trustees know that they can sell the remaining lands at such prices as to warrant the outlay that will be necessary in order to push the work on a larger scale than it has been done up to this time. The 12,000 farms alluded to will have been sold before the first of the year, considerably more than half the number having been disposed of already. These lands have not been sold without personal inspection. "Florida Clubs" have been formed in a number of the Northern and Western States, and it has been the plan of these clubs to send one or more of their own number to the Everglades to inspect the land and the work. The consequence has been that hundreds of visitors have been in Miami during the summer, the Florida Fruit Lands Co. alone, and there are other Everglades land companies, having entertained 200 during the month of November alone. These visitors have been men of sound sense, frequently engineers selected on that account to represent the purchasers, and I have yet to hear of a single person visiting the Everglades who was not satisfied with the proposition. As a rule, they are extravagant in their expressions, both as to the productive quality of the soil and the success of the drainage. I have met numbers of them, have been to the Everglades with them, have seen them stand fixed at the beauty of the broad acres of fertile soil stretched in unbroken pano-

rama before them, and have never yet heard one note of disappointment.

Since the trustees withdrew the remaining lands from sale, the purpose being to wait until the State lands were drained and the demand such as to bring a better price than could be realized for undrained lands, they have had many applications from would-be purchasers. It is presumably now the purpose to sell more of the lands, though possibly not immediately, for the trustees should have ample funds for some time to come from the Bolles contract to pay for drainage that will be done by contract.

The move made by the trustees in this direction is generally regarded as wise. In the first place, it will insure the earlier completion of the work than could have been hoped for if the State had continued to work with only a small fleet of dredges. The State, as before stated, has but four dredges. The machines cost about \$50,000 each. Under the deferred-payment plan, on which the lands were sold, it would have been slow business to buy additional dredges, one by one, as the money accumulated for that purpose, and in the meantime the cost of operation would have been constantly increasing. It is regarded as a much better plan for the work to be let by contract to firms that already have the equipment, for in this way the investment to the State is saved—not wholly, but in part. The State was removing the material at an average cost of 6.25 cents a cubic yard. This is a very small cost, and no contractor would be able to do the work at such a figure.

A competent engineer tells me that he would be glad to have a contract at eight cents per cubic yard for soft material and 50 cents per cubic yard for hard material. It is pretty well agreed that there will be but very little hard material to remove after cutting through the limestone rim, which in the case of the three main canals thus far opened extended a length of some three to six miles. The price paid by the Government for dredging work is not to be taken as a standard by which to measure the work in the Everglades. The Government is paying for work at Miami 24 cents for soft and \$1.78 for hard material, but the work is so dissimilar that it can hardly be put upon a comparative basis.

In the previous article reference was made to the survey of the Everglades made by J. O. Wright, supervising drainage engineer for the Government. His estimate of the removal necessary to complete the system that he suggested having in mind the cost of excavation which the State had demonstrated as practicable was: 7,745,844 yards of muck excavation, at eight cents, \$619,667.52; 30,983,376 yards of muck and sand, at four cents, \$1,239,335.04; total, \$1,859,002.56.

In this report he says: "From the investigations made by this office the results indicate that about 20 per cent. of the excavation required will be a mixture of sand and porous rock, and the remainder will be pure muck, of muck underlaid with fine sand."

Under the contract arrangement proposed it is to be expected that the cost of excavation will be materially increased, but it should not be increased much, if any, over the total cost to the State with the cost of equipment and repairs included. Under the proposed plan a great number of dredges can be placed at work, and it will be to the interest of the contractors to complete the work as early as possible.

Today I visited the dredge "Miami," which is working in a canal that has been opened since May of the present year, about five miles from the city of Miami. The opening of this main canal alone has taken the water from the 'Glades as far as eye can reach on either side. Huyler

and W. R. Comfort of New York are jointly interested in a tract of several thousand acres on the line of this canal. It is their purpose to grow sugar-cane here in large quantities for their own use as well as for the markets. They have a small dredge at work on their tract, but on the banks of the State canal they have opened a demonstration farm, and the prospect there is most pleasing. Tomatoes, eggplants, peppers and other vegetables are being grown on land which was nearly four feet under water a year ago. Mr. Comfort is here from New York personally supervising this work. He is greatly interested and is persuading his friends to buy Everglades land. A member of the party that visited the farm today was from Montana—a practical ranchman. He has been over considerable territory, prospecting. He told me that land in the Sacramento Valley that was held at \$150 an acre did not compare with the Everglades soil, and that the irrigated lands of the West were not so promising. Not far from the line of the canal we saw two men building a house in the Everglades. They came here from one of the Western States a few weeks ago, and liked it so well that they didn't go back. The lands that they bought will not be open for some time, but they made cropping arrangements with Mr. Comfort and have taken up their abode in the Everglades. Such instances might be enumerated at length, going to show that the drainage of the Everglades is not a problem, but a fact. The only question is that of opening the lands for settlement fast enough to accommodate the demand, and the trustees are preparing to do this by permitting contractors to hurry the work faster than they could hope to accomplish under the conditions which I have attempted to make clear. J. H. REESE.

CHATTANOOGA BUILDING.

A Number of Projects Under Way or Contemplated.

[Special Cor. Manufacturers' Record.]

Chattanooga, Tenn., December 4.

The Hamilton Safe Deposit Co.'s decision to build a steel frame bank and office building at Market and West 7th streets for the use of the Hamilton National Bank has already had a good effect on the community. The building will be between 10 and 14 stories high, fronting 60 feet 9 inches on Market street and running back 100 feet. It will cost about \$250,000. Thomas R. Preston is president of the new company, and is also president of the Hamilton National Bank, which will remove on April 1, 1910, to temporary quarters while the new bank is being constructed. The other officers of the Hamilton Safe Deposit Co., which will be incorporated with \$400,000 capital stock, will be the same as those of the bank. H. T. Olmsted and G. H. Miller will be vice-presidents; C. M. Preston, cashier, and Charles L. Knoedler, assistant cashier. An architect will be selected at once and the plans will then be prepared.

Chattanooga Baseball Improvement Co., O. B. Andrews, president, care of Richmond Hosiery Mills, has been organized with \$15,000 capital stock. They will appoint an architect and begin work soon after January 1 on expensive grandstands in their new ball park.

J. A. Wardlaw, treasurer and manager of the Independent Ice Co., 24-26 William street, expects to greatly enlarge his brick mercantile building at 1429 and 1431 Market street and convert it into a large hotel. It is across the street from the new central passenger station which was opened to the public this month.

Board of Mayor and Aldermen, T. C. Thompson, Mayor, will probably complete the selection next week of a joint committee of the two boards to decide how the

\$150,000 which they have on hand in cash is to be expended for schools; \$20,000 will probably be expended on repairs of old buildings, including some new roofs and furnaces. An eight-room brick school building will be erected near East Main street; one of six rooms in the Ninth ward; one of six rooms at West 4th and Chestnut streets, and an 18-room school building at McCallie avenue and Douglas street. Prof. S. G. Gilbreath, James Building, is city superintendent of schools. The joint committee spoken of above will select architects.

The Keystone Pythian Co., Alexander Scott, Sr., president, care of Davidson Clothing Co., 811 Market street, has appointed Charles E. Bearden architect to prepare plans for an expenditure of about \$20,000 to be made soon after January 1 in remodeling the Walnut Street Christian Church, which they have purchased for a home for Keystone Lodge, No. 35, Knights of Pythias. The building will have heavy stone columns placed in front, and will be heated by hot water.

C. E. James, James Building, had plans completed two years ago by R. H. Hunt for a nine-story steel frame hotel adjoining the James office building. The foundations are in, and all is ready for building, but Mr. James has not announced what he will do. It is thought that he will build the hotel soon.

Rossville Boulevard Committee, Capt. A. J. Gahagan, chairman, has awarded a \$3500 contract to Chickamauga Quarry & Construction Co., James Building, for three concrete culverts for the new road. The committee has \$50,000 on hand for building this boulevard, which will connect this city with the United States Government's system of roads at Rossville, Ga. W. L. Dodds is county engineer in charge of the boulevard.

University of Chattanooga, Capt. H. S. Chamberlain, chairman of the board of trustees, is receiving proposals for the erection of a residence for Rev. John H. Race, president of the university. Adams & Alsop, James Building, are the architects, and H. S. Probasco, president of the American National Bank, is chairman of the building committee.

The Chattanooga Medicine Co. has instructed Downing & Pringle, architects, James Building, to proceed at once with the erection of a \$15,000 two-story-and-basement brick building in St. Elmo (suburb). The Government will occupy a part of the building for postoffice, and the balance will be used by the Chattanooga Stock Medicine Co. Steam heat will be used.

Stone Fort Land Co., J. T. Lupton, vice-president and secretary, The Elizabeth, will proceed very soon with the erection of a five-story-and-basement brick building 30x150 feet in size on Market street, to be occupied by the Betterton-England Shoe Co., now at 1417 Market street, as a wholesale shoe store. Downing & Pringle, the architects, James Building, will superintend the building and award the subcontracts, as no general contract will be awarded. The building will be of mill construction. There will be a steam-heating plant, automatic sprinkler and electric freight elevator.

T. B. COLBURN.

In spite of damage by heavy rains in June, destroying 50 per cent. of the Irish potato crop in certain sections of the Eastern Shore of Virginia, the business of the Eastern Shore of Virginia Produce Exchange, one of the most successful co-operative undertakings in the country, showed gains this year over 1908. The exchange handled 532,517 barrels of Irish potatoes, 675,886 barrels of sweet potatoes and 209,803 packages of cabbages and berries.

Oklahoma: Future Center for Glass Industries.

By L. L. HUTCHINSON, Assistant Director, Oklahoma Geological Survey.

[Written for the Manufacturers' Record.]

The ordinary plate, window and bottle glasses of commerce are sodium lime silicates, while high-grade glass for the manufacture of cut glassware, lenses and artificial gems is a potassium lead silicate with small amounts of several other ingredients. So far as records show, there has never been a natural glass mixture discovered. The present practice in glass manufacture is to assemble the raw material at a convenient point and prepare an artificial mixture, which is then melted and given the desired form while hot.

The silica for all grades of glass is obtained from pure or nearly pure quartz sand. The transparency, brilliancy, hardness and absence of color in glass is directly proportional to the purity of sand, and one cannot, therefore, be too careful in the selection of glass sand. Lime is always introduced in the form of native limestone; the sodium of plate glass is from sodium carbonate, known to the trade as soda-ash, while that used in window and bottle glass is from sodium sulphate, popularly called salt cake. These two sodium compounds are by-products of salt manufactories.

The average "batch" of glass material consists of sand, 100 parts; limestone, 33 parts; sodium compound, 39 parts, and small amounts of carbon and arsenic. Obviously, then, there are a number of conditions to be met in the location of a glass factory. Chief among these are accessibility of markets, good cheap fuel, pure sand and high-grade limestone near at hand, and the proximity of salt factories to supply the sodium ingredients.

It is the purpose of this paper to show that the first four of these conditions are already fully met in Oklahoma, and that the time is doubtless not far distant when the fifth will also be accomplished. Existing conditions will be discussed in the order named.

There are at present six trunk-line railroads that cross the State from north to south and from east to west. These railways connect directly with the principle jobbing centers of the Mississippi valley, Gulf coast and Rocky mountain region, and thus offer great possibilities of interstate and export trade, while the ever-increasing demands of a rapidly growing population guarantees a domestic trade of no mean proportions.

With Statehood Oklahoma inaugurated a system of freight control so that every shipper can secure equal privileges and service and equitable rates, so that a new firm entering the field cannot be bankrupted by transportation favoritism.

The ideal fuel for all manufacturing and domestic purposes is natural gas; crude petroleum is second in convenience and efficiency, while coal was for centuries the best fuel known to mankind. Of these three fuels Oklahoma has more than any other State west of the Mississippi. For the past two years it has ranked first State in the production of oil. While the gas output has never been ascertained, it is proportionately large, and the virgin oil fields are measured by tens of thousands of acres. Gas operators stand ready to make long-term contracts to supply manufacturing gas at three cents per 1000 cubic feet, while crude petroleum can be had at 25 cents per barrel. When it is remembered that 15,000 cubic feet of natural gas are about equal to a ton of ordinary steaming coal, such rates are seen to reduce fuel cost to a basis of coal at 45 cents per ton, without the expense of stoking or disposing of the cinders.

Oil and gas development in Oklahoma

began in earnest in 1904, and there are now 500 square miles of producing gas territory, and there is good reason to believe that this is not 10 per cent. of the probable gas field. Suffice it to say, therefore, that there is reason to believe that natural gas will be the State's chief manufacturing fuel for many years, and when it shall have been exhausted that there is coal enough for generations to come.

Glass sand is known to occur in Oklahoma in two widely separated regions—one in the Arbuckle Mountains, the other in the Ozark Uplift, northeast of Tahlequah, while deposits of commercial purity have been reported from near Marietta, in the Red River Valley. Of these, the occurrences in the Arbuckle Mountains have most of promise under present conditions.

The glass sand near Tahlequah occurs along a bend of the Illinois River in what is known as the Bergen sandstone, which has been described as a nearly pure, siliceous sand of rounded grains, with a matrix scarcely sufficient to hold it together. The rock crumbles readily under the stroke of a hammer, so that it appears that it would be easily crushed and washed ready for the glass factory. This sand formation varies in thickness from a few feet to more than 100 feet. One of the best exposures near Tahlequah is a few miles northeast of that city, where the Bergen sandstone bluffs are 100 feet high and the stream has not yet exposed the bottom of the ledge.

No analyses of the Tahlequah sand have been made, and with present transportation facilities the deposit is probably not of economic value. It is thought, however, that future railway development will make it accessible, and that it will be found, on analysis, to be sufficiently pure for the manufacture of good grades of glass.

The glass sand of the Arbuckle Mountains is found in the Simpson formation, which consists of a great mass of sandstone, shale and thin beds of limestone, with an aggregate thickness of 2000 feet or more. This sand-bearing formation usually outcrops as a band surrounding the mountains, but in places it is absent, due to faulting or other geologic phenomena.

There are three sandstone members in the Simpson formation—one near the base, one near the middle and a third near the top of the group. The sandstone at the base is usually local in occurrence and of little importance. The other two are practically coextensive with the outcrop of the formation, and often consist of massive beds of quartz sand of exceptional purity and very free from cementing matrix, so that it crumbles to fine sand under the blow of a hammer.

No glass-sand quarries have yet been opened. From time to time specimens have been collected along the outcrop and analyzed with good results. The following analyses were made in the survey laboratory, and are compared with analyses of West Virginia glass sand, published by the geological survey of that State:

Glass Sand Analysis No. 20, One Mile North-east of Roff, Okla.

Iron oxide..... 0.13 per cent.

Silicon..... 99.87 "

The specimen, collected from the surface outcrop, had not been subjected to washing or other cleansing process before analysis. Compare this with an analysis of selected West Virginia sand from Corinth, which had been washed and was ready for the glass factory:

Silica..... 98.20 per cent.

Iron oxide..... 0.048 "

Aluminum..... 1.112 "

Another high-grade sample was found

near Crusher, Okla. It was analyzed, as found near the surface, and gave results as follows:

Silicon..... 99.95 per cent.
Iron oxide..... 0.08 "

An unwashed sample of the glass sand of Craddock, W. Va., yielded the following analysis:

Silica..... 97.66 per cent.
Iron oxide..... 0.1291 "
Aluminum..... 2.1209 "

The same sand was greatly improved by washing, as is shown by the following analysis, made after it had been well cleaned:

Analysis by the West Virginia Geological Survey.

Silica..... 99.29 per cent.
Iron oxide..... 0.0708 "
Aluminum..... 0.6432 "

By inspection it is seen that washing removed 1.53 per cent. of impurities from the West Virginia sand, of which amount .0583 per cent. was iron oxide. Now, if a like amount of iron could be removed from the Oklahoma sand by washing, the first analysis cited would show a silica content of 99.92 per cent., while the second would be practically 100 per cent. pure.

These are a few examples. If necessary, they could be multiplied, but these serve to show the grade of the sand. Such silica occurs in abundance at Bromide, Simpson and Sylvian, all of which are at present without railways. Good deposits are known, however to occur at Fitzhugh, Roff and Mill Creek, on the Frisco Railroad, while the Santa Fe exposes the sand in a cut three miles south of Davis, and again at Crusher, about 12 miles northwest of Ardmore. The Washita River flows by the last two outcrops mentioned, and would with little expense supply power for quarrying and water for washing the sand.

The Simpson formation is bounded above and below by heavy ledges of limestone, which are often pure, and since the rocks have been turned on edge by mountain-making forces there is scarcely an occurrence of the glass sand where good limestone is not at hand. If, however, it is deemed expedient to build glass factories near the gas or coal belts and ship silica, there are numerous limestone formations in the gas belt, and one of good grade near the coal fields, so that the supply of limestone could usually be had near the plant.

Oklahoma is at present manufacturing but little salt; soda-ash and salt could, therefore, not be had within the State. The salt fields of Kansas, however, are producing a great amount of these products at present, and they should be had at reasonable cost. Conservative estimates have been made of Oklahoma's salt possibilities, and it is believed that the daily flow of brine from springs in the State is sufficient to make 100 carloads of salt daily if it were utilized, and there is no way of estimating the possible development of the region. It does not seem possible that such natural possibilities in salt should be long neglected, and when its manufacture has begun the supply of sodium constituents for the manufacture of glass will be greatly increased and brought nearer to the center of our future glass industry.

Thus it is seen that Oklahoma has within her boundaries the main prerequisites for the manufacture of high-grade glass, namely, railroad connections with the great jobbing center of the Central and Western United States and Gulf ports; unsurpassed supplies of the best fuel known to the world; silica sand of undoubted purity and in unlimited quantities; limestone near either the silica or fuel deposits, and great future possibilities in the salt industry, and, therefore, a convenient supply of sodium compounds. The writer, after carefully considering

these facts, believes that he speaks conservatively, "who says that Oklahoma is destined to become one of the greatest glass-producing States in the Union."

IRON AT BIRMINGHAM.

Shrewd Buyers Taking Advantage of the Situation.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., December 6.

Several scattering sales of pig-iron were made the past week both by merchants and producers on basis of \$14.50 per ton at the furnace. It is understood that no round lots have been sold as yet on above basis. The head of one of the large producers here stated today that the warrant iron was moving rather freely from his yards, and furnace stocks were being augmented about in the same proportion. He expressed himself as pleased that such conditions obtain from the fact that once the warrant iron is disposed of a better and more substantial tone to the market will prevail. There is much logic in this statement. The largest producer in the district is out of the market for sales for any delivery, and a majority of the other companies seem disposed to hold the base price of \$15 per ton for delivery next year. It is believed, however, that should an inquiry for a good round tonnage come in the market probably the above price would be shaded for first-quarter delivery 25 cents to 50 cents per ton. Low-grade irons are still scarce, and some 800 or 900 tons of gray forge were sold the past week at \$13.25 per ton at the furnace. It is very doubtful if any additional tonnage could be bought at this time at this price. Shrewd buyers are taking advantage of even a 50-cent reduction in the base price of iron, and it is understood that several large inquiries are pending. Just what price will be named is purely speculative. The consensus of opinion is that any recession in the market can only be of short duration. Charcoal iron is firm at \$22 per ton at the furnace.

There seems to be quite a deal of contemplated and actual municipal business throughout the State of Texas in the way of laying water pipe. The city of Fort Worth is in the market for some 2500 tons of cast-iron pipe; also the city of Dallas for 3000 to 3500 tons. There are also lots of 6000 to 8000 tons for points in Arkansas—all to be placed within the next 60 or 90 days. Manufacturers continue to keep their stock moving at a very satisfactory rate, and a much better tone exists. Following prices are quoted today, but are not guaranteed for any very extended time, per net ton f. o. b. cars Birmingham: 4-inch, \$25; 6, 8 and 10-inch, \$23; 12-inch and over, average \$22; fittings, \$60, with \$1 per ton extra over pipe prices for gas pipe.

Inquiries for old material continue about the same as reported last week, but dealers are still inclined to make no material concessions. They are hopeful and are willing to ride the tide until the next buying movement hits the pig-iron market. Following prices per gross ton f. o. b. cars Birmingham prevail:

Old iron axles, \$20 to \$20.50.
Old iron rails, \$15.75 to \$16.25.
Old steel axles, \$17.75 to \$18.25.
No. 1 railroad wrought, \$14 to \$14.50.
No. 2 railroad wrought, \$12 to \$12.50.
Dealers' wrought, \$11 to \$11.50.
Old steel rails, \$12.50 to \$13.
No. 1 machinery, \$12.50 to \$13.
No. 1 steel, \$13 to \$13.50.
Old standard car wheels, \$13.75 to \$14.25.
Light castings, stove plates, \$9.75 to \$10.25.
Cast borings, \$6 to \$6.50.
On account of the illness of Mr. E. L.

Billingslea, member of the firm of Rogers, Brown & Co., located at Chicago, Ill., Mr. C. A. Stillman, resident manager of Rogers, Brown & Co., Birmingham, has been transferred to the Chicago office of this firm of a period of several months. Mr. Stillman will continue in touch with his firm's business in the Birmingham district.

The Western Steel Car & Foundry Co. is assembling raw material and preparing to put in one of the departments at its plant in Anniston, Ala., for the purpose of puddling and hammering certain axles for which it has contracts.

The Hammond-Byrd Company of Birmingham has been appointed exclusive sales agent for the product of the Beggs Pipe & Foundry Co., manufacturer of soil pipe and fittings, located at North Birmingham.

SOIL FERTILITY.

Scientific Suggestions for the Relief of Pessimists.

[Special Cor. Manufacturers' Record.]

Washington, D. C., December 7.

In speaking of the great question of soil fertility, which is occupying the minds of agriculturists all over the country and the attention of the people, as to whether the American soils are continually wearing out, as some authorities say, and as the soil experts of the United States Bureau of Soils contend to the contrary, Secretary of Agriculture James Wilson in his annual report deals with the subject as follows:

"A great and fundamental problem which has confronted our people, as it has the people of the world, is the question of the permanency of soil fertility. Of late years particularly the idea has prevailed that the soils of various parts of the United States are wearing out through loss of mineral plant food, and that a serious condition is thus presented for the future of our people. So important and fundamental is this problem for the welfare of our people that I directed a thorough examination to be made of the whole subject, and an exhaustive report has been issued, from which certain important conclusions can be given in a few words.

"It has been found from the records kept by our own department that, on the average, crop yields per acre have shown a decided tendency to increase during a period of 40 years, and that there is no evidence of general decrease over large areas or in any particular State, as is popularly supposed. This indicates undoubtedly that on the average our people are farming more intelligently and therefore more successfully, and that we are, through these more intelligent methods, winning gradually larger returns from the soil.

"It has been held, however, by some writers that even if the yields are increasing, the element of danger is that the larger crops remove larger amounts of plant food from the soils and bring nearer the time when the soils will eventually wear out. To meet this argument it has been necessary to extend the investigations into older countries, and the records of Europe have been searched for information in regard to the past history of these older countries that can be taken as a safe guide for the future of the newer soils of the United States. These records indicate that in the middle of the sixteenth century, or, roughly speaking, 300 to 400 years ago, the soils of Central and Northern Europe were producing on the average about as much wheat per acre as the soils of the United States are producing at the present time. These European soils have been occupied for agricultural purposes for at least a

thousand years, during most of which period the country was more densely populated than the United States is at the present time. So far as records are obtainable they indicate that as a result of increasing population and more intensive and more intelligent methods of soil control, and in spite of their longer occupation, the average yield per acre has increased until, in the case of Northern Europe, the soils are now producing about two or two and one-half times as much per acre as the newer soils of the United States are producing.

"In addition to this evidence of actual crop yields per acre, an exhaustive investigation has been made of all the chemical analyses which have been made of soils for the last 18 years in certain countries of Northern Europe in which crop yields have been increasing, and likewise of the soils of the United States, including the older soils of the Eastern States and the newer soils of the Western States. The results of these analyses, published side by side, show no significant difference in chemical composition between the older soils of Europe and the newer soils of the United States. Microscopical examinations of the soils fail to show that the longer occupation of the soils of Europe has changed noticeably the mineralogical character of the soils. It is reasonable to infer from the work that has been done that within historic times the occupation of the soils for agricultural purposes has failed to noticeably change the mineral character of the soil material upon which the future life of the nation must ultimately depend. The reasons for this and the laws of nature, which permit the soil thus to be continuously occupied and used for mankind as freely as the air, are complicated and difficult to understand, and offer a profitable field of research for our agricultural colleges and experiment stations.

"While this satisfactory solution of this main question is hopeful for the nation, nevertheless individual farmers fail and individual farms run down through neglect, lack of intelligent cultivation and lack of knowledge as to soil adaptations and methods of control. So far as can be observed at the present time cases of failure on the farm are due to individual neglect or misjudgment. Such injury as has resulted to the soil in such cases may be remedied by change of ownership or by more intelligent methods of control, and is, therefore, not fundamentally due to the soil itself, but to the people who have worked the soil. This is a condition which can be improved either through force of necessity, as it has been in the case of Europe in the past, with increasing population and greater necessities, or through education and force of intellect, utilizing the advance knowledge which now prevails alike in Europe and America.

"The first lesson that our people must learn—one which is taught by the operations of the soil survey—is that we have a great variety of soil types (700 different types of soil having already been encountered in the area that has been surveyed), and each one of these soil types has its own peculiarities, its own characteristics, and its own peculiar adaptation to crops, rotation schemes and methods of soil control. This is the great fundamental fact which our farmers must understand. The first step in agricultural development is the knowledge of the particular soil characteristic of the farm.

"The idea has prevailed in the past that through the use of commercial fertilizers and intelligent control all soils can be made to produce at will any crop that it is desired to grow. From a scientific standpoint this may be possible, but it

cannot be done at a profit. There are soils that cannot be adapted commercially to wheat production, there are soils that cannot be adapted commercially to fruit culture, and there are soils that cannot be adapted commercially to any of our staple crops, and should remain as forest soils. The highest development of agricultural production will result from the adaptation of each type of soil to a particular line of crops, bearing in mind at all times the market requirements and the transportation facilities."

MIAMI CITIZENS AROUSED.

Determined to Maintain Steamship Connection With Jacksonville.

Editor Manufacturers' Record:

It may be of interest to the wholesale merchants of Baltimore to know that the citizens of Miami and vicinity are at present engaged in a determined fight to maintain the little steamer which has been recently put in commission by the Cook Steamship Co. between Jacksonville and Miami.

At a rousing mass-meeting a few days ago, which was attended by the leading business men and farmers of this community, who appreciate the benefits of water transportation, it was shown that the connecting lines (Clyde and Merchants & Miners' Transportation Co.) have refused to enter into any traffic relations with the local steamship company, and that they are co-operating with the Florida East Coast Railway Co.

In order to check this policy of these corporations the management of the local steamer has replevined several consignments, and same were delivered to the consignees, by the sheriff, free of charge. In one instance the freight charges on a shipment from High Point, N. C., to Miami amounted to \$61.25, of which \$14.25 covered the rate to Jacksonville and \$47 from this point to Miami. This shipment was carried to Jacksonville by rail, showing that some of the connecting railway lines are no better than the other carriers with reference to our little steamer.

Our people can readily understand the antagonistic attitude of the Florida East Coast Railway Co. toward local water transportation, but it is difficult to account for the policy pursued by the Merchants & Miners' Transportation Co. as indicated by its response to the Cook Steamship Co. When asked for traffic arrangements it declined to enter into such arrangement on the ground of having ample agreements for covering this territory. Its action in this respect is a great disappointment to the merchants of this locality, inasmuch as the latter expected better treatment from a Baltimore line, basing their hopes on the apparent benefit to the wholesale merchants of that city from such connections.

Ever since the Federal Government commenced the improvement of the Miami harbor we have been looking forward to the establishment of water transportation between Jacksonville and this point, and it was generally thought that Baltimore capitalists would grasp the opportunity of securing a vast volume of trade for their city which could not be obtained without local water transportation. However, the people of this section decided to establish the desired line themselves, and thus demonstrate the feasibility of the project, with a view to attracting sufficient outside capital which would enable it to resist the anticipated attacks of the Florida East Coast Railway. Instead of receiving the hoped-for assistance from your city, our task is made harder, and the position of our local steamer is made untenable by the above recited action of the Merchants & Miners' Transportation Co. The policy of our home corporation with reference to local water transportation

is contrary to the interest of this community. Its effect will be far-reaching; it will arrest the development of this section of the country, as no one wishes to settle in a locality which is bottled up by one railroad, thus depriving thousands of human beings of the enjoyment of the most perfect and health-giving climate known.

With the aid of the farmers of this locality, who are the greatest sufferers from excessive freight rates, the success of this little steamer is a foregone conclusion, but in order to make it of general benefit to the community it is absolutely necessary to improve its service so as to meet the demands made upon it by our merchants. To accomplish this another vessel is needed, for which capital is wanted.

The readers of your journal who have acquired some knowledge of the subject of Everglades reclamation, as outlined by your well-informed correspondent, Mr. J. H. Reese, in your issue for the 7th of October, 1909, will readily see the important bearing water transportation has upon this item of development. Its successful consummation will put thousands of acres of fertile land under cultivation, the crops of which will require many vessels for its movement, in addition to the transportation facilities afforded by the Florida East Coast Railway. This is no optimistic dream. Any interested party can easily verify this statement by a personal investigation. Looking upon the situation from another standpoint, we find that our farmers and fruit-growers, who are seemingly doing well, are not receiving sufficient returns from their investments and labor. This deplorable condition is directly attributable to excessive freight rates, thereby being forced to a reduction of acreage, and in some cases to an abandonment of the industry entirely. If this state of affairs is allowed to prevail indefinitely it would be folly to reclaim the Everglades or engage in any other development in this vicinity, as there will be no demand for more land, however fertile such land may be.

The logical conclusion is that water transportation is an imperative necessity for this locality, and it will therefore yield satisfactory returns on capital invested therein. As a matter of fact, the present situation offers a rare opportunity to some wide-awake capitalist who is seeking investment.

This proposition is in line with the activities of your excellent journal in the upbuilding of the South. We may therefore rely upon your effective aid in bringing this matter to the attention of your numerous readers. This project is not confined to our community alone; its success or failure will affect the entire State of Florida.

ISIDOR COHEN.

Miami, Fla., November 29.

Broom Corn in Germany.

Broom corn, known in Germany as "besenginster," is not grown in Germany, which depends upon Italy and Hungary for its supplies. The yearly importation of broom corn from Hungary into Germany is placed at about 1500 tons, and the last price at which contracts were made was 48 crowns per 100 kilos (\$9.74 per 220 pounds) f. o. b. Hamburg. There is a shortage in available stocks, apparently, and it is said that it would be difficult at present to obtain broom corn in any quantities except at a much higher price than stated.

The 500 or 600 delegates to the annual convention at Norfolk next month of the National League of Commission Merchants, representing 29 States, will be given an opportunity to study the flourishing truck-growing industry in the Norfolk section.

BEAUTIES OF AUSTIN.

Attractions and Materialities of the Capital City of Texas.

[Special Cor. Manufacturers' Record.]

Austin, Tex., December 2.

Austin is situated only about 175 miles from the Gulf coast, at an altitude of 670 feet, on the banks of the beautiful Colorado River, in the midst of the enchanting scenery of hills and valleys which border that stream. With a population of 35,000 people, with its miles of wide, paved

school. This is the result of a bequest of \$50,000 left by the late John T. Allen to be used for this purpose. The public schools of Austin employ 110 teachers, a majority of whom are university graduates. The amount of expenditures for the public schools of Austin annually is nearly \$100,000, while the expenditures of the university is about \$1,000,000.

Austin has been planning to make of itself a great manufacturing city, and with that object in view built a great dam across the Colorado River several years

ago, but the floods of 1900 destroyed it, carrying with the dam about \$1,000,000 worth of machinery. That was one of the largest dams ever built, being 1200 feet long and 70 feet high, and impounded the water shed from 40,000 square miles, backing it up stream for a distance of 20 miles. Many thousand horse-power for mechanical purposes was thus provided, but the dam as built could not withstand the tremendous pressure. The city is now planning to have another dam built along lines similar to the Marble Falls dam, which is thought will withstand any pressure from high waters.

have a new dam built on Colorado River, Austin should easily take rank as an important manufacturing city. Her location is especially favorable, and there are many natural resources in and around here which could be very profitably converted into manufactured products and help to swell the commerce of the city.

But along commercial lines Austin is well up with other cities of her class. Six wholesale grocery houses, one wholesale dry goods house, one wholesale hardware house, six wholesale commission houses

H. Page & Bro., Austin, Tex., are the architects.

The Austin National Bank is also remodeling its bank building and raising it to four stories in height. This is to be 54x100 feet, with interior finished in Grecian marble and bronze, and all fixtures are to be most elaborate.

Austin has one of the best commercial organizations I have met with in the State. This is known as the Business League, of which W. H. Cullen is president, and Will L. Vining is secretary. Practically every



STATE CAPITOL.

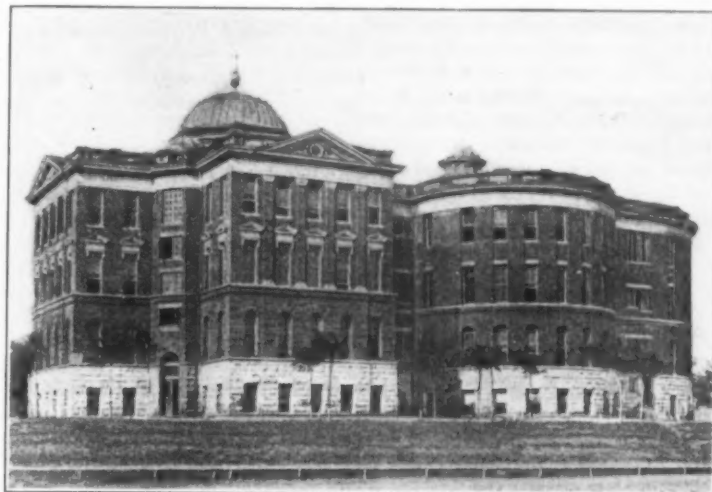
streets, long gravel drives and beautiful park, its many solid blocks of tall, handsome business buildings and many hundred beautiful and costly residences; its many stately churches of classic architecture, representing an expenditure of \$1,000,000; its 13 beautiful public-school buildings, representing another \$500,000; the fine Statehouse, representing an expenditure of \$3,000,000; the State University and all other State institutions, representing a combined outlay of fully as much more—where can be found on the American continent another such aggregation of attractive surroundings?

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and one wholesale drug house are among her big establishments. These houses do an annual business of many million dollars and supply a very large area with goods in their lines.

There are six banks here, three of which are national, having aggregate resources of \$7,500,000 and deposits of \$6,614,000. One of these, the American National, which has capital \$200,000, surplus and profits \$305,000, deposits \$2,278,470.02, cash and exchange \$968,942.59 and total assets \$2,995,142.05, is erecting one of the finest banking houses in the State. This is to be eight stories high, on Corinthian order of Roman architecture; the sub-base is to be of polished gray granite, the main walls of

business man in the city belongs to this organization, and with ample means to operate with it is doing much toward bringing new enterprises to the city. One thing in particular it is working for is to turn the tide of winter tourists toward Texas. Unquestionably there are many points in this State where the winter tourist could find desirable and interesting surroundings for a stay of a week, a month, or, for that matter, for all winter, and where he would find suitable accommodations as well as something to not only interest, but to entertain. However, one of the first things the tourist looks for is a first-class hotel where he can get anything he may require. This he can find here in the Driskill Hotel. This hotel



AUSTIN HIGH SCHOOL.



UNIVERSITY OF TEXAS.

Austin has been called the Athens of the great Southwest, and with good reason. The Texas University, one of the largest in America, with her 1600 students; St. Edward's College, Swedish Methodist College, Presbyterian College and the finest public-school buildings and the best system of public schools to be found in any American city, with the best corps of teachers and a scholastic population of 5500, the claim would seem well founded. In addition to the 13 public-school buildings, which cost approximately \$300,000, there is now being built a manual training

By a special act of the last Legislature the city was given a new charter, and under authority of that act the city government is now working under the commission system. This change went into effect last April. A. P. Woolridge is Mayor, and D. B. Grace, E. C. Bartholomew, Jas. P. Hart and P. W. Powell are commissioners. Under this new system many important changes have already been made, and others are under contemplation with a view to bring the city government up to the highest standard. Under the new administration, especially should they be able to

gray mottled brick, trimmings of terracotta. The dimensions of this building is 79x100 feet. The first floor will contain the banking department, which is to be finished in Italian marble and bronze. Besides the banking department, the first floor will contain six storerooms. The upper floors will be finished for offices in very elaborate style and equipment. All halls are to be finished with marble wainscoting and terrazzo floors. One pleasing feature is a roof garden, with two electric elevators running from basement to roof. The estimated cost of this building is \$400,000. C.

was built a number of years ago, and represents an expenditure of about \$750,000. It is four stories high, contains 150 rooms, and its interior finish is perhaps the most elaborate of any hotel in the State. The company owning this hostelry is now planning an annex to be about the same size of the present building, to be finished and furnished on the same elaborate plan of the main building.

This letter would be incomplete without at least a brief description of the magnificent Statehouse, standing at the head of Congress avenue, on the elevated site over-



ST. EDWARDS COLLEGE.

looking the entire city. The building covers an area 288x506 feet. The central portion is five stories in height, surmounted by a dome rising to the height of 320 feet above the base, upon which stands a figure of the Goddess of Liberty. The two great wings are four stories high. The main walls are of red granite from Marble Falls' famous quarries; the great columns are of iron produced at the East Texas furnace at Rusk, while the wood used in interior finish is from the big lumber plants of East Texas. Everything entering in the construction or finish of this magnificent structure is the product of Texas where it was possible to obtain it from such source. This building contains 258 rooms, 500 doors, 900 windows, and its total floor area is reckoned at 784,080 feet. It is claimed that only one other capitol building of equal size and value has ever been built on the American Continent—that at Washington city. But Texas is a big State, and required a big capitol.

WM. C. CLOYD.

GROWTH AT MARIETTA.

A Number of Flourishing Industries in the Georgia City.

Board of Trade.

Marietta, Ga., November 26.

Editor Manufacturers' Record:

Our population is 7500, double what it was at the last census. Our location is only 18 miles from Atlanta, at the foot of historic Kennesaw Mountain, 1200 feet above the sea. The altitude of our county is from 1000 to 1400 feet. Average annual rainfall for 30 years is 50.52 inches. Summer average temperature is 74 degrees; average temperature is 46 degrees.

The Methodists, Episcopalians, Baptists and Presbyterians all have fine church buildings; all have fine parsonages except the Baptists; Catholics have recently dedicated a church here. The county courthouse and jail are fine buildings. We have one of the best systems of public schools in the State.

The city recently sold \$110,000 4 per cent. water and sewer bonds for \$122,000, and is installing a modern system of sewerage and one of the best water-works systems in the South of its size.

While the present Board of Trade has not been very active for the past few years, it has been decided that it would have a reorganization in a short time and be prepared to co-operate with the new city administration.

The greatest need of our city today is a first-class, modern tourist hotel. We are anxious to get in touch with some first-class hotel man, and the citizens are prepared to take considerable stock or will give a good cash contribution to anyone who will build such a hotel. We have two or three exceedingly desirable locations.

Green & Sessions, attorneys of this city, and their associates have just secured franchise for a gas plant, which is very much needed, and will be in operation in about six months. The city will then have both electric lights and gas for cooking purposes as well.

Moultrie M. Sessions and associates are organizing the Southern Loan & Investment Co., and have purchased a valuable corner on Park Square, on which a fireproof bank and office building will be erected.

We have two banks, the First National, with a capital of \$100,000 and \$50,000 surplus; R. W. Boone, president; S. R. Dick, vice-president; J. E. Massey, cashier; the Marietta Trust & Banking Co., \$750,000 capital, \$15,000 surplus; J. D. Malone, president; Albion H. Gilbert, vice-president, and in active control of the bank; Geo. H. Sessions, cashier. Both banks are doing a fine business.

We have 50 stores of different kinds, all doing a good business.

The Brumby Chair Co., officers, T. M. Brumby, Sr., president; T. M. Brumby, Jr., secretary and treasurer, one of the largest and most complete chair factories in the South, manufactures 2500 chairs a day, making all grades. The product is shipped all over the United States, Cuba and Hawaii. The payroll amounts to \$2000 per week.

The Marietta Chair Co. is a large plant; does not make so many chairs, but makes a complete line of bedroom, parlor and library tables. Fifty per cent. of the product goes to the Southern States, the balance all over the United States. The officers of this company are J. R. Brumby, president; B. G. Brumby, business manager.

The Marietta Knitting Mill, R. H. Northcutt, president; R. W. Northcutt, vice-president; Jas. J. Daniell, secretary and treasurer, produces 10,000 pairs of hose a day. The plant consists of the best automatic machines for knitting, dyeing and finishing. The promoters are Cobb county men, using local capital and employing worthy native people. The mill was begun in a small way 12 years ago, but has continued to grow until now the product is known and sold in about 40 States. The payroll amounted to \$48,000 the past year, and it is soon to increase its equipment.

The National Marble Mills, Inc., of Canton, Ga., has purchased the plant of the Builer Marble & Granite Co. of Marietta and moved its plant to this point. The firm will be known as the National Marble & Granite Co. after December 1, and its officers are as follows: Geo. R. Brown, president and general manager; A. V. Jones, secretary; E. M. Viquesney, general sales manager; J. W. Barrett, superintendent. The plant is equipped with modern machinery of all descriptions, and the granite department has two of the largest granite surfacing machines built. Some large public monuments are now in course of construction. The Gober Marble Co., Geo. H. Gober, Jr., proprietor, has a very nice new plant near the city limits, near the Marietta Canning Factory, and does quite a business in the monumental line of business, the same as the McNeel Marble Co. and the National. There are several smaller concerns in town doing quite a little business in the monumental line. The Kennesaw Marble Co., A. V. Cortelyou, president, and R. W. Boone, treasurer, travels men in North and South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Kentucky, Arkansas, Louisiana, Missouri, Texas, Kansas, Iowa, North and South Dakota. Its output amounts to two cars daily. It handles principally Georgia marble, which includes the famous Georgia verde antique, a beautiful green marble, and also Italian marble in large quantities. Some of its important jobs recently finished are the interior of the State Capitol at Frankfort, Ky.; the new Hotel Patten at Chattanooga; Bisbee Building, Jacksonville, Fla.; Atlanta Terminal Station, Atlanta; City Hall, Little Rock, Ark.; Wesley Memorial Church, Atlanta. The marble industry seemed to be affected less by the panic of any industry in the country; now running day and night.

The McNeel Marble Co., R. M. McNeel, president; E. B. Freyer, vice-president, and M. L. McNeel, secretary and treasurer, has erected, among other monuments, the memorial to General John B. Gordon at the capitol grounds, Atlanta, Ga., and the monument to Hood's Texas Brigade at the State capitol grounds, Austin, Tex.

The Glover Machine Works, J. W. Glover, president; S. D. Rambo, vice-presi-

dent, and Leon Commerford, secretary, has for 12 years been building locomotives and a line of hoisting engines. The plant is modern, and equipped with machines of the latest designs. Locomotives of from 10 to 50 tons of all types are manufactured. Forty types of locomotives are built in 10 different sizes.

Hugh T. Inman, Ernest Woodruff, Judge John S. Candler and other Atlanta capitalists have purchased the Marietta Paper Co. mills, now getting charter with \$302,000 capital. This is one of the largest paper mills in the Southern States. It manufactures high-grade wrapping paper, machine-finished and super-calendar book paper and a fine grade of box-board paper. Payroll will amount to \$50,000 per annum. The mill will turn out about 70,000 pounds a day, which will amount to \$1700 to \$2000 per day. The mill was practically completed when the recent panic came on and the old company went under. The new company by spending \$50,000 will have one of the best paper mills of its size in the United States.

The Marietta Ice Co., 35 tons capacity per day, is owned and operated by Mayor E. P. Dobbs, who also owns one of the finest Elberta peach orchards in the State at Oakhurst, on the Louisville & Nashville Railroad, two miles north of Marietta, where he has a fine canning factory to take care of his surplus crop. He supplies the local trade and all the towns along the Louisville & Nashville Railroad, and ices all fruit cars at this point.

The Marietta Canning Co., E. P. Green, president and general manager, has a capacity of 50,000 cans per day. It is equipped with modern machinery, and is said to be one of the best canning plants in the State. This factory handles large amounts of peaches and other fruits from this section of the country.

The Atlanta Northern Railway Co. operates the electric car line between Atlanta and this city, with hourly schedules during the day and half-hour runs during rush hours morning and evening. It also runs four or five freight and express cars per day, and does quite a freight business.

Other industries include the J. J. Black Lumber Co., C. E. Henderson's plant, the C. T. Webb plant and R. H. Cox & Co.

Marietta has many handsome residences, and two garages are required for the 50 automobiles owned here.

E. H. Clay, one of our youngest lawyers, and a son of Senator A. S. Clay, has just been elected Mayor with a strong Board of Aldermen for the next two years by a big majority on municipal ownership of all public utilities, enlargement of public schools, encouragement of the local military company, a paid fire department and advertising our city.

This county produces about 18,000 bales of a fine grade of cotton, and by a great many this place is thought to be one of the best locations in the State at present for a fine cotton mill. We would be glad to take the matter up with interested experienced cotton-mill men, and will be able to get a good amount of stock subscribed locally for them. Here also is a good location for a box-board factory, which could sell its waste to the paper mill at fair price. Have already a splendid building that would be suitable for such a plant within 300 feet of the paper mill and located on two railroads.

This county, in addition to this city, which is the county-seat, has several splendid growing little towns, like Acworth, which has a population of 2000; owns its water and electric-light plants and has a new cotton mill and oil mill; the old town of Roswell, with a good cotton mill and woolen mills; Austell, where the famous lithia water is shipped all over the country; Powder Springs and Smyrna. We

also have the seventh Congressional agricultural college in this county, eight miles from Marietta, two miles from Powder Springs. We have 2684 farms in this county. The Kennesaw Dairy Farm, owned and operated by R. H. Northcutt, is a modern sanitary dairy farm in every respect. He has some of the finest Jersey cattle in the State, some imported from the Isle of Jersey.

The Belmont Farm, Smyrna, in this county, is a large chicken farm with a dairy, and this year, on six acres of land, produced three crops, cutting off this spring a crop of oats that was sowed last fall, then a crop of Irish potatoes, then a crop of corn, which actually brought \$2790. Loring Brown is manager.

J. Gid Morris, just across from Belmont Farm, raised this year over two bales of cotton per acre on land that a few years ago would not have produced a quarter of a bale.

Several of our farmers in the last few years have been experimenting with alfalfa, and three or four this year cut off four crops of very fine alfalfa.

A great many of our farmers have had telephones placed in their homes, and our county under a recent act of the Legislature has put the convicts on the public roads, and is now grading and macadamizing the public roads as fast as possible. It is expected that we will vote on the question of issuing \$400,000 or \$500,000 bonds for road improvement in this county next year.

United States Senator Alexander S. Clay was born and raised in this county, and resides here; the present Governor, Joseph M. Brown, has lived here for the past 20 years; Judge Newton A. Morris, judge of the Blue Ridge circuit and ex-Speaker of the Georgia House of Representatives, lives here; Associate Justice Samuel C. Atkinson of the Supreme Court of Georgia was born in this county and resides in the county; George F. Montgomery, clerk of the Railroad Commission for a number of years, resides here, and was born in this city. Hon. John Awtrey, one of the two road supervisors of the State, lives here.

We also have one of the best and cleanest weekly newspapers in the State of Georgia, the Marietta Journal, now in its forty-third year; the Marietta News, a weekly started about two years ago, and a job printing house.

MOULTRIE M. SESSIONS, Pres.

Sale of McCall's Ferry Company.

A dispatch states that William M. Barnum of New York has purchased the property and franchises of the McCall's Ferry Power Co. of 24 Exchange Place, New York, with hydro-electric plant under construction at McCall's Ferry, on the Susquehanna River, Pennsylvania. The purchase price is said to be \$2,000,000, and Mr. Barnum is understood to represent the bondholders, who propose reorganization of the company and the continuation of construction.

A dispatch from Moorfield, W. Va., says that about four miles of track have been laid on the Hampshire Southern Railroad. The steel bridge at Romney has been erected, and work is progressing on the bridge over the South branch below Moorfield. Grading between Romney and Moorfield is practically done, excepting a large cut on the east side of the river, and grading is under way between Moorfield and Petersburg. At Riverside, west of Romney, a station and warehouse have been completed.

The general average of 135 estimates by members of the Memphis Cotton Exchange of the commercial cotton crop of this season is 10,749,520 bales.

ALL-CONCRETE HOMES.**Twenty-eight Cottages and Other Buildings at Tampa.**

[Special Cor. Manufacturers' Record.]
Board of Trade,
Tampa, Fla., December 4.

The first house in Tampa or South Florida to be constructed in its entirety with concrete has just been completed by the Hard Construction Co., A. W. Hard, manager, for the Sanchez & Haya Real Estate Co., and has so thoroughly met the requirements of the real estate firm that they have given the Hard people a contract to erect 28 more similar cottages, a large hotel and four two-story combination storerooms and flats. These will be built in the Sanchez & Haya subdivision, near Michigan avenue and 16th street, surrounding the new Regensburg cigar factory, which in itself is the largest clear Havana cigar factory in the world, having floor room for 900 cigar rollers on one floor, their space unobstructed by pillars or other supports.

The concrete cottage, a picture of which is here shown, is 20x51 feet in dimensions over all, one story, with a 10½-foot ceiling. There are six rooms and bath, as follows: Front porch, 7x20 feet; parlor, 11x12.4; living-room, 9.8x12.4; dining-room, 12x12.4; bedroom, 9.8x13; bedroom, 12x9.8; kitchen, 10.4x8.6; bathroom, 5.6x9.8, and rear porch, 5x6.

The roof is 1¾ inches thick, resting on a series of reinforced pillars, and not on

pleted it is possible we will build others."

A. W. Hard, the manager of the constructing firm, is the State agent for the Kahn system, and is a graduate of the head office of that concern. His firm has a contract for a warehouse 150 feet square of molded concrete and other large contracts.

W. B. POWELL,
Secretary.

To Extend Irrigation Facilities.

Last week the MANUFACTURERS' RECORD mentioned the decision of the United Irrigation & Rice Milling Co. of Crowley, La., to extend its canals. This company has canals in Vermillion and Arcadia parishes, and will extend them about 25 miles in order to make 10,000 additional acres of land available for rice cultivation. It will undertake the work with steam shovels and dredge. Referring to this improvement of facilities, a dispatch from Crowley says: "It is the purpose of the company to open to rice cultivation several thousand acres of virgin lands near Gueydan, Kaplan and Abbeville. These lands are located in what is known as the 'Holland of America,' and they are among the most fertile in the rice belt. The United company owns several irrigating canals in Vermillion and Arcadia parishes. The present mileage of these canals aggregates about 200 miles. The additional acreage contemplated will involve an increase of about 10,000 acres, and a large number of farm-

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

YOAKUM AND HAWLEY.

They Have Joined Forces in the Frisco System, and Extensions Are Expected.

Control of the St. Louis & San Francisco Railroad has been sold by the Rock Island Company to B. F. Yoakum, Edwin Hawley and others. This transaction necessitated the transfer of nearly \$29,000,000 of common stock which was acquired six years ago by the Rock Island. It is further stated that Nathaniel Thayer of Boston, James Campbell of St. Louis and interests connected with the St. Louis Union Trust Co. are associated with Messrs. Yoakum and Hawley in the purchase.

An official statement says that one of the reasons for the sale was the legal advantage, if not the necessity under the law, of separating the Rock Island from the Frisco properties, the question having been raised as to their being parallel and competing lines. They will now be operated as separate, all relations having been legally severed, but it is intended to conduct them to mutual advantage wherever it can be done.

After the deal the directors of the Rock Island system elected officers as follows: Executive committee, D. G. Reid, W. H. Moore, J. H. Moore, F. L. Hine, R. A. Jackson, H. U. Mudge, E. S. Moore; officers, D. G. Reid, chairman of executive committee; R. A. Jackson, vice-chairman of executive committee; H. U. Mudge, president.

At a meeting of directors of the St. Louis & San Francisco Railroad Co. the following were elected: Executive committee, B. F. Yoakum, Edwin Hawley, B. L. Winchell, James Campbell, Frank Trumbull, E. V. R. Thayer and Thomas H. West; officers, B. F. Yoakum, chairman of executive committee; B. L. Winchell, president. Later the following additional officers were elected: C. R. Gray, James Campbell and W. D. Bibale, vice-presidents; W. C. Nixon, vice-president and general manager; A. Douglas, vice-president and general auditor; A. S. Greig, vice-president and purchasing agent, and C. W. Hillard, vice-president.

In connection with the transaction it is reported that the Frisco system acquired the St. Louis, Brownsville & Mexico Railway, of which A. T. Perkins of St. Louis, representing the St. Louis Union Trust Co., is vice-president, and Mr. Yoakum is president. Mr. Perkins is president also of the Marshall & East Texas Railway, which is likewise said to have been acquired. Both of these railroads are doing new construction, and it is anticipated that some important connections will be developed for the Frisco. The St. Louis, Brownsville & Mexico Railway extends from Houston to Brownsville, Tex., 371 miles, and has a branch from Harlingen to Sam Fordyce, 53 miles. The Marshall & East Texas Railway is 84 miles long from Winsboro to Blocker, Tex., having recently completed an extension of 10 miles, although other extension work is under way.

Concerning the Rock Island side of the deal, a dispatch from Philadelphia says official announcement has been made that the Rock Island will be represented in the Lehigh Valley Railroad by Wm. H. Moore, D. G. Reid and E. S. Moore, who will become directors at the annual meeting in January. This is said to mean that there will be close traffic relations between the Rock Island and the Lehigh Valley, but that the old interests in the Lehigh Valley

property are still dominant therein. W. H. Moore is quoted as saying that the interest of the Rock Island people in the Lehigh Valley is purely a personal investment.

A report from St. Louis says that about \$4,000,000 of capital from that city, exclusive of the holdings of B. F. Yoakum and James Campbell, are invested in Frisco stock, about \$3,000,000 being held by the Brownsville syndicate. It is remarked that Hawley's interest in the Frisco shows that there is an alliance between him and Yoakum, which was beginning to be suspected when Hawley acquired the Missouri, Kansas & Texas Railway.

New Equipment, Rails, Etc.

The Atlantic Coast Line has contracted for 1500 freight cars for 1910 delivery, and has also ordered 25,000 tons of rails for delivery during the fiscal year which ends June 30 next.

An officer of the Central of Georgia Railway says that the company does not contemplate the purchase of any new equipment. This refers to a recent press report.

The Norfolk & Southern Railway is getting 500 box cars of 60,000 pounds capacity and 200 flat cars, 40 feet long and of 60,000 pounds capacity, from the American Car & Foundry Co. of St. Louis. These cars were built for another company, which failed to take them.

The Oklahoma Realty & Development Co. of Lawton, Okla., P. D. Anderson, president, is in the market for ties and rails for two miles of track.

The Chicago & Alton Railroad has ordered 10 Mikado 12-wheel freight engines, 271,000 pounds each, from the American Locomotive Co., New York.

The St. Louis Southwestern Railway is reported to have ordered 16 locomotives from the Baldwin Locomotive Works, Philadelphia.

The Atlanta, Birmingham & Atlantic Railway is reported to have ordered two Mikado locomotives from the Baldwin Works.

The Southern Railway has ordered 1000 box cars from the Lenoir Car Works, Lenoir City, Tenn., according to a report. The Athens Electric Railway, Athens, Ga., is reported contemplating the purchase of several street cars.

The Charleston Consolidated Railway, Gas & Electric Co. of Charleston, S. C., will, it is reported, soon let contract for four single-truck and six double-truck street cars.

The St. Louis Southwestern Railway is reported to have built 12 passenger cars at its shops, Tyler, Tex.

The Carolina, Clinchfield & Ohio Railway is reported getting bids on 12 steel underframe passenger cars, 60 feet long and 9 feet 8 inches over all.

The Baltimore & Ohio Railroad is reported in the market for rails, and the Chesapeake & Ohio is also said to be contemplating rail purchases.

The Fort Worth & Denver City Railway, it is reported, will build 18 box cars at its shops, Childress, Tex., where it recently completed four of similar pattern.

The Oklahoma, Kansas & Missouri Interurban Railway Co., Miami, Okla., will, it is reported, be in the market next year for 2 locomotives, 3 gasoline motor cars, 30 box cars and 10 gondola cars.

The Cincinnati, New Orleans & Texas Pacific Railway is reported to have let contract for the new bridge over the Kentucky River to the American Bridge Co. of New York. It will require 6000 tons of steel.

The Southern Railway is reported in the market for about 2000 tons of bridge steel.

A press report says that the Nashville,



the side walls. The roof was plastered over rib metal. The inside walls are two inches thick, with cement plaster worked over Hyrib sheathing. The outside walls were poured into molds. The floors are of cement over reinforcements and sheet ribbing. There is a floor drain in the kitchen, which is connected with the sewer pipe, and a slight pitch from all rooms to drain off water at housecleaning times.

The only wood used in the construction are the door and window frames and the doors. The building is practically fireproof, fitted with guaranteed plumbing, electric-lighted throughout with tungsten lights, and has proven a very warm house in the winter and is claimed to be cool in summer.

The house, both inside and outside, admits of any manner of decoration, and the tenants can choose inside decorative tints. Mr. Frank Sanchez, of the firm building the houses, said:

"I cannot give you the cost of the construction, but will say that it is cheaper than wood construction, and the upkeep is absolutely nothing, while there will be no insurance to carry. I believe I have solved the problem of a cheap cottage for the man of moderate means, and also of the house for rental purposes, because the tenant would be obliged to take an axe or dynamite to do any material damage to the building. When the present contract for some 35 additional concrete houses is com-

ers will be needed. A number of farmers have left this vicinity to seek new lands along the Mississippi River and in Arkansas. The opening of these new lands in this section will keep many of these farmers from leaving this section."

The official correspondence leading to the restoration of the name of Jefferson Davis to the Cabin John Bridge, Washington, D. C., has been published in an attractive booklet under the editorship of Mrs. J. Enders Robinson of Richmond by the Confederate Southern Memorial Association of New Orleans.

The Atlanta, Birmingham & Atlantic Railroad, in its desire to participate in the sure development of "Wiregrass Georgia," is circulating the Macon Telegraph's report of the recent industrial convention held at Macon, together with a map showing the relations of the region to the railroad.

The address by Mr. Edward Wheeler Parker of the United States Geological Survey, dealing with the conservation of coal in the United States and read at the Spokane meeting of the American Institute of Mining Engineers, has been published in the transactions of the institute.

For the advancement of the material interests of West Texas, the West Texas Development Congress is in session this week at San Angelo.

Chattanooga & St. Louis Railway has ordered 100 freight cars from the American Car & Foundry Co.

The Marshall (Texas) Car Wheel & Foundry Co. is reported to have built 12 cars for the Watterman Lumber Co., which has a plant near Marshall.

The New Orleans Railway & Light Co., according to a report quoting President Hugh McCloskey, contemplates purchasing 30 or 35 single-truck cars.

Concerning the report that the Pennsylvania Railroad Co. would build some freight cars with a capacity of 140,000 pounds, or 70 tons, an official letter to the MANUFACTURERS' RECORD says that in designing large cars for handling coke it was considered that if they could be made to carry the same bulk of coal to the Lakes and return with an equal weight of iron ore considerable economy would result, but while the car bodies are sufficiently strong, the car trucks would have to be redesigned in order to carry the heavier load, and until that has been done no such cars will be in service and none have been ordered.

Southern Pacific's Annual.

The twenty-fifth annual report of the Southern Pacific Company, which covers the fiscal year ended June 30, 1909, has been issued in pamphlet form, and includes, with other properties which it owns, the Galveston, Harrisburg & San Antonio Railway, Houston East & West Texas Railway, Houston & Shreveport Railroad, Houston & Texas Central Railroad, Iberia & Vermillion Railroad, Louisiana Western Railroad, Morgan's Louisiana & Texas Railroad & Steamship Co., San Antonio & Aransas Pass Railway and the Texas & New Orleans Railroad, all of these being in the South.

The income of the system for the year was as follows: Gross operating revenues \$110,846,404, decrease as compared with 1908 \$2,669,162; total revenues \$120,521,908, decrease \$2,755,012; operating expenses \$67,191,874, decrease \$8,813,619; total expenses, including taxes, \$79,584,375, decrease \$9,028,816; revenues over expenses and taxes \$40,937,533, increase \$6,273,804; total income other than from transportation operations \$5,272,348, increase \$1,278,600; surplus \$46,209,882, increase \$7,552,405; surplus over fixed charges \$28,566,285, increase \$7,178,422; surplus over fixed and other charges \$26,879,402, increase \$7,001,061; surplus after the payment of dividends on both preferred and common stocks, \$9,477,906. The average length of railway operated was 9626 miles.

Among the expenditures for additions and betterments during the year were the following: In Louisiana, \$54,414; in Texas, \$636,326. The total expenditures for such work amounted to \$4,815,907, of which \$4,125,166 were spent on the lines west of Texas and Utah. The company is, however, making an expenditure of \$263,200 at San Antonio, Tex., where a steel viaduct, a concrete subway and a brick and concrete freight station are being built for the Galveston, Harrisburg & San Antonio Railway.

The system has 1837 locomotives, 1771 passenger cars and 44,578 freight cars, besides 5398 maintenance of way cars.

The total assets of the company are \$513,625,708, an increase of \$34,897,912 during the year. The capital assets included in the foregoing are \$307,990,941. The total balance to the credit of profit and loss is \$43,318,164; decrease, \$3,450,300.

Johnson City to Bristol.

J. B. Cox, Johnson City, Tenn., reported interested in a proposed electric interurban railway between that point and Bristol, Tenn., writes that the company

has not yet been organized, but that the projected route is from Johnson City via Austin Springs, which is a summer resort, thence near Piney Flats, Bluff City and Thomas Bridge, small villages, and up the Beaver Creek Valley to Bristol, altogether about 24 miles. The line will cross the Watauga River and the Holston River, and will traverse valleys through a very fine section of country.

Mr. Cox further says that he is endeavoring to interest capital, believing that a railway would develop the country more rapidly and be a paying investment. He also makes reference to the growth of Johnson City as a factor bearing upon the success of the line, and says that on account of the location and completion of the National Soldiers' Home at Johnson City at a cost of more than \$2,000,000, and also on account of the construction of the Carolina, Clinchfield & Ohio Railway, not only Johnson City, but Bristol and the intervening country, have developed rapidly and increased in population within the last few years. From a small village Johnson City has grown to a city of 12,000 people, not including the Soldiers' Home. Bristol has now a population of about 20,000, and both cities are increasing in size and importance. Last Wednesday it was decided to locate the State Normal School for East Tennessee at Johnson City. This will cost about \$500,000, and will add materially to the population.

New Railroads Planned.

Among new railroad projects recently reported are the following:

Colorado & Concho Railway Co. of Colorado, Tex., capital \$500,000, chartered to build a line from Colorado, on the Texas & Pacific Railway, to Robert Lee and Tennyson, Tex., the latter on the Kansas City, Mexico & Orient Railway, 60 miles. The incorporators are C. W. McCutcheon, W. J. Adams, P. D. Coulson, A. J. Russell, W. F. Dupre, J. C. Cunningham, S. B. Kemp, J. S. Burroughs, C. W. Escue, J. H. Warren, M. Stroud, T. L. Odom, W. H. Bell.

Greenville & Spartanburg Railway Co. will apply for a charter December 20 to build a standard-gauge electric line about 31 miles long from Greenville to Spartanburg, S. C. The organizers are Charles W. Ellis, H. H. Prince and O. K. Mauldin.

Winnboro & Boeuff River Railroad, chartered in Louisiana by the St. John Lumber Co. of Winnboro to build a line connecting the two points named in the title. Construction is already begun, and five or six miles are graded.

Gadsden Railway Co., incorporated at Gadsden, Ala., with \$2000 capital to engage in street-car, general railroad and light and power business. It is building a short line from Gadsden to the steel plant, and is said to be connected with the Alabama City, Gadsden & Attalla Railroad Co. The incorporators are J. B. Carrington of Anniston, Ala.; W. N. Malone and A. B. Mitchell of Birmingham, Ala.

WILL SPEND \$600,000.

Richmond Street Railways to Erect Buildings and Make Other Improvements.

The Virginia Railway & Power Co. of Richmond, Va., according to a report from there which quotes President Wm. Northrop, will spend about \$600,000 for improvements that were authorized recently by the directors.

Among this work is the building of a new terminal passenger station, with car barn and repair shops, at the corner of 7th and Perry streets, in Manchester. The barn will cover a block on 7th street from Perry street to Porter street, 300 feet, with a depth of about 120 feet. It will be erected of either brick or concrete. On a

lot owned by the company near the new reservoir twin car barns will be erected, each 120x288 feet. They will be built with metal and either concrete or brick. Other buildings to be erected are a paint shop 75x90 feet, a storehouse 80x90 feet, a blacksmith shop 40x60 feet, besides some smaller buildings for oil and sandhouses, and also for providing lockers and rooms for the employees.

The company will also erect at the corner of 29th and Perry streets a new station and waiting-room, besides car barns and shops for small repairs. For the light and power department a steam turbine electric generating unit will be purchased for reserve power and for use in emergencies.

The company has also decided to buy 20 double-truck semi-convertible cars of the pay-as-you-enter pattern, besides 40 sets of new motor equipment for other cars now in service.

WESTERN MARYLAND.

Extension to Pittsburg Expected to Be Taken Up Soon by the New Company.

The reorganized Western Maryland property is to be known as the Western Maryland Railway Co., with a capital stock of \$60,000,000, of which \$10,000,000 is 4 per cent. preferred. The directors elected are: Benjamin F. Bush, Henry E. Cooper, George J. Gould, Frederick T. Gates, Alvin W. Krech, Edgar L. Marston, Winslow S. Pierce, all of New York; W. A. Wilbur of South Bethlehem, Pa., and Alexander Robertson of Baltimore.

The company, according to current reports, will soon take steps to build a connection to Pittsburg and also to Wheeling, W. Va. It will furthermore devote considerable attention to the building of extensions to coal properties for the development of a large tonnage of bituminous coal. It is expected that the first extension will be between Cumberland, Md., and New Haven, Pa., 83 miles. The distance from Cumberland to Wheeling is 164 miles, but part of this will doubtless be covered on the line to Pittsburg, a branch being built to Wheeling.

Concerning the new directors, it is said that the Rockefeller interests and Blair & Co. of New York are both represented, and it is anticipated that ample financing will be provided to fulfil the outlined plans.

SEABOARD'S OFFICERS.

N. S. Meldrum Elected President—S. D. Warfield Executive Committee Chairman.

The Seaboard Air Line has been reorganized by the election of officers as follows: President N. S. Meldrum; assistant to the president, L. G. Haas; vice-president and general manager in charge of operation, C. H. Hix; second vice-president in charge of traffic, C. R. Capps; R. L. Nutt, treasurer; T. W. Robey, comptroller, and D. C. Porteus, secretary; executive committee, S. Davies Warfield, chairman; C. Sidney Shepard, James A. Blair, Ernest Thalman, L. F. Loree, W. B. Donham, B. F. Yoakum and John Skelton Williams.

Mr. Meldrum has been officially connected with the Seaboard for several years, and before the receivership occupied the position of vice-president. The other officers have also been with the company for some time.

AFTER TEXAS IRON ORE.

Santa Fe Official Says Extension Is Likely to Be Built Next Year.

J. W. Kendrick, vice-president of the Atchison, Topeka & Santa Fe Railway, with headquarters at Chicago, has been making an inspection of the company's lines in Texas, and while there was quoted

as saying that in addition to the extensions proposed and under construction in the western part of Texas, he thought that the company during 1910 would build an extension of at least 50 miles to develop the iron-ore fields in the eastern part of Texas, and would also erect new docks at Port Bolivar, on Galveston Bay, for handling iron ore. The company, it is understood, expects to carry 1,000,000 tons a year out of the new fields when all arrangements are completed and the extension built, and it is possible that a new steamship line will be put in operation to convey the ore from Port Bolivar to points on the Atlantic coast for transport to the furnaces.

This refers to the contemplated iron-ore development north of Longview, Tex., in which it is said that Chas. M. Schwab of the Bethlehem Steel Co. and other capitalists are interested.

Telephones for Dispatching.

The Louisville & Nashville is installing a complete up-to-date telephone train dispatching circuit between New Orleans and Mobile. The installation of this circuit has been somewhat delayed, owing to the very severe storms which have recently occurred in that vicinity, destroying not only a considerable amount of the telegraph pole line, but the track and roadbed as well.

This telephone circuit will be the first to be installed in that section of the country for the purpose of handling trains, and will be watched with considerable interest by the other roads in that vicinity. The apparatus employed is of the standard type manufactured by the Western Electric Co. It is the second circuit installed by this railroad, the first one being between Louisville and Cincinnati.

The Chicago & Northwestern Railroad Co. has also purchased from the Western Electric Co. apparatus for a complete telephone train-dispatching circuit from Chardon to Long Pine, Neb., 198 miles.

Twenty-Mile Lumber Line.

Martin Van Heuvel, agent for the Sage Land & Improvement Co., Mobile, Ala., denies the report that the company is interested in the building of a railroad from Poplarville to Columbia, Miss., but says that the Louisell Lumber Co. has recently purchased from James F. Cooper a tract of timbered land on Pearl River, and expects to build a logging road from a connection with the New Orleans & North-eastern Railroad to the river, traversing the timber. The point of connection with the main line is not yet decided. The company owns 30 miles of rail and four locomotives in Alabama, which will be moved to the new development, and he does not think that more equipment will be required. The line to be built is about 20 miles long, and the bridges required will be of 25 to 50 tons weight. The country is level. Those interested are William H. Louisell and T. M. Stevens of Mobile, Ala.; Seyrill Louisell and William Van Heuvel of Pickayune, Miss.

Opelousas to Moreauville.

The Avoyelles, Palmetto & Gulf Railway Co. proposes, according to official information, to build 41 miles of line immediately from Opelousas, La., via Plaquemine and Palmetto to Moreauville, La. Further extensions will be made later. The country through which the route lies is level, but with no overflow, and in a fine agricultural region containing cypress and hardwood timber. Connection will be made with the Southern Pacific Railway, the Colorado Southern Railroad, the Texas & Pacific Railway and the railroad of the Louisiana Railway & Navigation Co. Naff & Ollier of Opelousas, La. are the engineers in charge. The officers of

the railway are E. A. Plache of Marks-ville, La., president; Dr. R. G. Hawkins of Palmetto, La., vice-president; H. E. Estorge, treasurer; John H. Harmanson, secretary, and Dudley L. Guilbeau, attorney, all of Opelousas, La.

On the Key West Extension.

A dispatch from Key West says that the Florida East Coast Railway is now employing more than 3000 laborers on its extension to that city. There are 47 miles of line to be completed, and one of the engineers is quoted as saying that the work of restoring the property from the effects of the September storm is progressing, and practically all of the dredges are now in working order. It is understood that the engineers will direct their attention toward constructing the line so that it can withstand a much greater storm than that which was lately experienced, the high tides which prevailed during the hurricane having been higher by a considerable degree than any previously recorded. A large number of men are employed at West Summerland Key and at Pigeon Key, and the concrete work will soon be resumed.

Cullman (Ala.) to Coal Mines.

President G. H. Ten Broek of the Cullman Coal & Coke Co., Cullman, Ala., writes that grading on the company's railroad, which will be 25 miles long, will be completed by January 1. The line runs southwest from Cullman to coal properties, and soon tracklaying will begin and the entire road will be ready for operation not later than April 1 next. The expenditure on the road will be approximately \$300,000, of which more than one-third has been expended, and the rest will be used in 1910.

There will be a further expenditure by the company of \$100,000 for opening up the coal mines, and the president adds: "We will be ready to ship coal by April 1, and expect to have an output before long of 1000 tons per day."

Santa Fe's Double Track.

A recent press report quoted W. E. Hodges, vice-president of the Atchison, Topeka & Santa Fe Railway, as saying that the company would double-track its line from Chicago to the Pacific coast. Concerning this an officer writes that the Santa Fe line is now practically double-tracked from Chicago to Mission, Kans., and will be entirely so by the summer of 1910. Double-tracking west of Mission depends largely on future conditions, primarily the demand and density of traffic. It is a great undertaking, and will take years to accomplish.

Railroad Notes.

Both the Norfolk & Western Railway and the Virginian Railway, it is reported, have engineering corps at work in Buchanan county, Virginia, seeking routes for branches to develop coal lands.

The Oklahoma Realty & Development Co. of Lawton, Okla., proposes to build two miles of railway to an industrial addition for which J. D. Kennard is engineer in charge. The grading contract has been let to C. F. Thomas of Lawton, but the company desires to purchase ties and rails. P. D. Anderson of Lawton, Okla., is president.

The new union station at Chattanooga, Tenn., was put in use on December 1 and the use of the old depot was abandoned. The contract for the station was let on May 11, 1906, and construction began within two months. The building is a handsome structure occupying a large block of ground, and is very commodious. The principal waiting-room is 68x82 feet, and the main concourse 60x310 feet.

GOOD ROADS

Bonds Voted.

Fort Pierce, Fla.—St Lucie county voted bonds for \$200,000 to construct rock roads.

Pulaski, Va.—Pulaski Magisterial District voted bonds for \$70,000 to construct roads.

Bonds to Be Voted.

Lexington, Ky.—City will petition Legislature for authority to issue bonds for \$500,000 to improve streets.

Miami, Fla.—Dade county votes January 3 on bonds for \$75,000 to construct roads.

Contracts Awarded.

Beaumont, Tex.—City awarded \$17,000 contract for paving on Magnolia street.

Claremore, Okla.—City awarded contract at \$60,000 for 15 blocks of brick paving.

Oklahoma City, Okla.—City awarded contract at about \$56,000 for paving South Walker street.

Nashville, Tenn.—Board of Public Works awarded several contracts for 7900 square yards of sidewalk paving and 2000 linear feet of curbing; amount available, \$50,000.

Contracts to Be Awarded.

Alexandria, Va.—City will expend \$18,000 for paving four squares on King street.

Lenoir, N. C.—Lenoir & Blowing Rock Turnpike Co. opens bids January 5 for grading and macadamizing three miles of road and macadamizing three additional miles to be graded by company.

Little Rock, Ark.—Superintendent of Public Works will open bids January 18 for paving East 2d street.

Mobile, Ala.—Board of Public Works will invite bids for repaving a portion of Water street; estimated yardage, 3764; estimated cost, \$6400.

Suffolk, Va.—Nansemond county will expend \$14,000 on road building.

Sumter, S. C.—City opens bids December 21 for 6000 square yards of cement sidewalks on Main street.

De Soto Parish Roads.

Governor Sanders of Louisiana has arranged to float at par through the Whitney-Central, New Orleans National and Hibernia Bank & Trust Co. \$18,000 worth of the certificates of the police jury of De Soto parish, which will enable the work of good roads construction to be pushed.

Governor Hadley of Missouri has called a land and industrial congress at Springfield January 26-28 for the purpose of bringing together homeseekers, landowners and investors in mining and manufacturing.

The terse and suggestive article on conservation presented by Mr. John Birkinbine last June before the Engineers' Society of Pennsylvania has been published in the September issue of the Journal of the society.

It is expected that the plant of the Chattanooga & Tennessee River Co., developing water-power at Hales Bar, in the Tennessee River near Chattanooga, will be completed within 12 months.

The Commercial Club of Chandler, Okla., is circulating an attractive pamphlet designed to hasten the settlement of 500,000 acres of school land in Lincoln county, Oklahoma.

It is announced that within the State banks of Georgia are nearly \$100,000,000 of deposits, or more than 100 per cent. more than the deposits at this time a year ago.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

INCREASE IN COTTON VALUES.

The Interests That Have Been Responsible for It.

Editor Manufacturers' Record:

Referring to the telegrams from Washington printed in several of the local newspapers of the 29th ult., indicating that the President and the Administration were on the eve of taking drastic measures against those instrumental, as is claimed, in creating a congested condition in the cotton markets of the world, through manipulation by the bull clique, or combination or syndicate, or whatever the instigators of such a movement may term it, I beg to say that if the Government wants to start a campaign of that kind, it would have to materially enlarge the Government prisons throughout the country, as it would be necessary to incarcerate the cotton planter, the Southern cotton merchant and the Southern banker, all of whom are "particeps criminis," so to speak, in bringing about the increase in cotton values in recent months.

1. The cotton planter, realizing the shortness of the crop generally, and of his own particularly, has marketed it as he pleased, and on a gradually ascending scale of prices, and I may say just here that those who have been mainly instrumental in bringing about this enhancement of values has been the spinner. The planter is holding the unsold portion of his crop for much higher prices than the highest so far this season, and my opinion is that his expectations will be realized by a large majority.

2. The merchant, who has, to a large extent, assisted the planter in making his crop, has encouraged the holding of the bales by those to whom he had given such assistance, because in many instances, on account of the shortness of the yield, in no other way except through a rise in the price could the total indebtedness of the planter be paid.

3. Bankers, finding themselves with an abundance of deposits, and being well aware of the conditions already referred to, have encouraged both the planter and merchant to borrow from them, knowing the collateral to be first-class, and in great measure making it a patriotic duty they owed their fellow-citizens to do all possible toward securing prices commensurate with the supply of American cotton, and, in fact, cotton of all kinds, and in keeping with the demand for the same.

"If this be treason," in the language of one of our Revolutionary statesmen, "then make the most of it;" but if indicting or jailing is to be done, the Government will have to turn its attention in that respect to the three classes above referred to, and not to A, B, C or D as a buyer of contracts, although many of the latter are also owners largely of spot cotton, which they have either bought outright in the open market or taken delivery of on contract in the New York and New Orleans markets.

We will have arrived at a pretty pass, indeed, if the United States Government can assume to dictate to the citizens of this country as to their right to buy any commodity they may choose to invest in, and this applies to brickbats as well as to

cotton or wheat. If the demand for brickbats is greater than the supply, and this has occasionally happened momentarily, then the price for them will rise, and the man short of them or who needs them for construction purposes will have to buy as best he can, and that is exactly the condition the world's spinners will find themselves confronted with during the next four or five months, if not sooner.

The world's spinners' takings of American cotton since the beginning of the present cotton season, September 1 last, to the 26th ult., inclusive, have been 3,239,210 bales, against 3,206,615 last year, an increase of 31,000 bales, and therefore of much significance, in view of the estimates of the current crop of 10,750,000 bales, against 13,800,000 bales yield last season.

Then, again, exports from this country for the same period have been within 125,000 bales of what the exports were for the same period last year, thus confirming what is known to those conversant with the subject, namely, that it is the cotton mills of the world that have advanced the price of cotton, because of having had to buy it, and not the speculator in contracts, and if the people in the South have been able to obtain values that have been paid for their cotton since the middle of August last, and therefore since the new crop came upon the market, they are to be congratulated.

Surely, if spinners in buying from the South have elevated the price to its present level, then it is because they could not do without the cotton, and for the same reason; that is, being compelled to complete their further requirements before the next crop shall be on the market, they will pay the South higher prices than those now current, that spot holders in this country seem determined to ask.

ATWOOD VIOLETT.

New York, December 3.

Marion Manufacturing Co.

The Marion (N. C.) Manufacturing Co. expects to begin manufacturing in January. It has completed 50 cottages for operatives, completed the engine and boiler rooms, and is now roofing the mill building. The equipment will include 12,500 ring spindles and 300 looms for the production of wide print cloth. The Saco & Pettee Machine Shop of Newton Upper Falls, Mass., is furnishing the cardroom machinery; the Fales & Jenks Machine Co. of Pawtucket, R. I., is furnishing the spinning equipment, and the Draper Company of Hopedale, Mass., is supplying the looms. Steam power will be used, the boilers being furnished by the Lombard Iron Works of Augusta, Ga., and the cross-compound condensing Corliss engine by the Allis-Chalmers Company of Milwaukee, Wis. The Marion plant will cost about \$300,000, and J. E. Sirrine of Greenville, S. C., is the architect and engineer in charge. The company's organization and plans were reported some months ago. D. D. Little of Spartanburg, S. C., is president-treasurer; Wm. E. Wall of New York is vice-president, and S. L. Copeland of Marion is secretary.

Consolidated Cotton Duck Co.

Thomas M. Turner of New York has been elected president of the Consolidated Cotton Duck Co. of Baltimore, and Chas. K. Oliver of Baltimore (formerly president) has been elected vice-president. The other vice-presidents are David H. Carroll and George K. McGaw of Baltimore and Charles T. Grantham of Hamilton, Canada, who is vice-president and general manager. Spencer Turner of New York was elected assistant general manager. Mr. Oliver will also be treasurer. President Turner is also president of the J. Spencer Turner Company, which is con-

trolled by the Consolidated Cotton Duck Co., and is distributing agent for the mills. These new officers were mentioned last week as proposed.

The Republic Cotton Mills.

The Republic Cotton Mills of Great Falls, S. C., is now having plans and specifications prepared for proposed plant. This company will erect a main building 650x135 feet, with a two-story spinning-room and a one-story weaving-room, to be equipped with 25,600 spindles and 650 automatic looms, driven by 1500 electric horse-power. About 500 operatives will be employed, and the daily output will be about 5000 pounds of fancy print cloth. J. E. Sirrine of Greenville, S. C., is the architect-engineer in charge. Hal B. Mebane of Graham, N. C., is secretary-treasurer. The company's organization with \$600,000 capital and its general plans were announced in October by the MANUFACTURERS' RECORD.

Dockham's Textile Directory.

The MANUFACTURERS' RECORD has received a copy of Dockham's latest directory of the textile industries of the United States, Canada and Mexico. This publication is a complete report and directory of the textile manufacture and dry goods trades, embracing cotton, woolen, silk, jute, linen and knit goods. It lists and presents comprehensive data regarding every mill, including the number of spindles, looms and knitting machines, names and addresses of the officers, amount of capital stock, etc. The book is published by the Dockham Publishing Co. of Boston.

The Verlina Cotton Mills.

The Verlina Mills of Jacksonville, Ala., has been organized for the purpose of building a plant to weave into cotton cloth the yarn output of the Ide Cotton Mills. This new company has awarded contract to Guy Amos of Anniston for the erection of the mill building, which will be one story high, 100x136 feet, and is to be equipped with 200 looms. Messrs. George P. Ide, A. H. Robbins and H. R. Rice are the organizers.

The Lone Star Cotton Mill.

The Lone Star Cotton Mill of McKinney, Tex., plans to build about a 5000-spindle plant. It will erect brick building equipped with sprinkler system for fire-protection, producer-gas plant, dynamo, motors, etc., and competitive bids will be wanted about January 1. This company's organization was reported last week. It has a capital stock of \$200,000, and J. Perry Burrus is president.

E. L. Shuford Manufacturing Co.

The E. L. Shuford Manufacturing Co. of Lawton, Okla., has been incorporated with a capital stock of \$500,000 by E. L. Shuford of Hickory, N. C.; Browne Cornelison of Oklahoma City, and R. E. Trosper of Lawton. This company was mentioned in October as to be organized for the erection of a 10,000-spindle and 340-loom cotton-cloth mill.

The River Falls Mill.

The River Falls Cotton Mill Co. of River Falls, P. O. at Graham, N. C., plans the construction of a 2000-spindle mill but has not matured plans. This company was reported organized in September with a capital stock of \$200,000 and J. W. Meneff as president. It contemplates installing a water-power-electrical plant to drive the mill.

Will Install Cloth Equipment.

The Granite Manufacturing Co. of Marble Falls, Tex., will install spindles and looms for manufacturing cotton cloth, the

equipment to be driven by electricity transmitted from the water-power electrical plant the company is now building. J. A. Smith of Charlotte, N. C., is interested in the cotton-mill enterprise.

The Lockhart Mills.

The Lockhart (S. C.) Mills will add 10,000 spindles to mill No. 2 and erect a brick addition 20x50 feet to mill No. 1. It is understood all contracts have been awarded. This company now has 51,000 ring spindles and 1600 looms, producing brown sheeting.

The Raccoon Mills.

The Stewart-McCord Company of Savannah, Ga., has purchased the Raccoon Mills at Raccoon, Ga. It will remodel this plant into a cotton-yarn mill, and contemplates developing a water-power to furnish electricity for power and lighting.

A Company Increasing Capital.

The Aragon Mill of Rock Hill, S. C., has increased its capital stock from \$400,000 to \$500,000. This company now has 14,336 ring spindles and 280 broad looms, operated by electricity and producing print cloths.

Increasing Capital by \$100,000.

The Aragon Cotton Mills of Rock Hill, S. C., will increase capital stock from \$400,000 to \$500,000. This company now has 14,336 ring spindles, 280 broad looms, etc., operated by electric power on print-cloth production.

To Build at Bladenboro.

H. C. Bridger and associates of Bladenboro, N. C., will organize a company to build a cotton mill. They have obtained subscriptions amounting to \$135,700, and will soon decide details.

Plans \$30,000 Improvements.

The Southland Knitting Mills of Macon, Ga., will issue \$30,000 of bonds for improvements. This company now has 41 knitting machines, 60 sewing machines, dyeing and finishing equipment, etc.

A Greenwood Cotton Mill.

F. S. Evans of Greenwood, S. C., has completed arrangements to organize the cotton-mill company reported in September as planned. He has purchased (at \$10,000) land for the site.

The Rinehart Construction Co., care of Ira C. Rinehart, San Antonio, Tex., plans establishment of woolen mill in connection with construction of proposed industrial suburb.

Mining Notes.

The Belknap Coal Co. of Wichita Falls, Tex., has incorporated with a capital stock of \$200,000 to develop coal deposits. Its incorporators include J. A. Kemp, Frank Kell, J. J. Perkins and associates.

The Southern Fuller's Earth Co. has incorporated with a capital stock of \$100,000 to develop fuller's earth deposits in the South. Its incorporators include H. D. Swengel and C. D. German of Warren, Pa., and H. W. Davis of Wilmington, Del.

The Crittenden Company, for the probable development of coal lands in Kentucky, has incorporated with a capital stock of \$125,000. Its incorporators are Samuel Marshall Evans, Montclair, N. J.; W. Murray Sanders, Marion, Ky., and Edith M. Steiger, Brooklyn, N. Y.

Three thousand persons attended the November good-roads meeting at Hammond, La., with the result that a petition has been started for the right to vote on a five-mill tax for good roads.

MINING

Lignite Company Organized.

Formal organization of the Higrade Lignite Co., to which reference was recently made by the MANUFACTURERS' RECORD, has been effected by the election of P. E. Miller, Athens, Tex., president; J. M. Hussey, vice-president and general manager, and J. E. Miller of Athens, secretary and treasurer. The company will develop lignite mines at Eustace, Tex., about 65 miles from Dallas, on the Texas & New Orleans Railroad. It is announced that the mines will be opened by January 15, 1910, and that by March 1 they are expected to produce 100 tons per day. The company is capitalized at \$40,000, and the estimated capacity of its mines when fully developed is 500 tons per day.

Copper in Texas.

Mr. William B. Philips, director of the bureau of economic geology at the University of Texas, writes to the MANUFACTURERS' RECORD as follows:

"There is a copper-silver-lead district in El Paso county, in the Quitman Mountains and in the Sierra Diablo that would be the scene of great activity in almost any other State. The old Hazel copper-silver mine, north of Van Horn, El Paso county, yielded ore that ran to 2000 ounces of silver per ton, and ore to the value of more than \$1,500,000 was taken from it and sent to El Paso. There are other old properties in that district that are worth any man's attention. From geological considerations I think that it is not unlikely that deposits of potash salts will some day be found in this State, for there is a region that almost exactly duplicates the famous Halle district in Germany. It is to such things that we hope to direct the activities of this bureau."

Developing Two Coal Mines.

Details regarding the development of two coal mines near Fairmont, W. Va., by the Consolidation Coal Co., Continental Building, Baltimore, Md., have been received by the MANUFACTURERS' RECORD. The mines will be known as Owings Nos. 1 and 2, and are expected to produce 2500 tons each per day. There will be no contracts awarded in connection with the development. The grading has been started and 30 houses practically completed, but contracts for the erection of 100 additional houses will be awarded next spring. After the mines have been developed to some extent the company will construct steel tipples to cover five railroad tracks, probably next spring. The completed plants will cost approximately \$300,000. George T. Watson of Fairmont, W. Va., is the company's West Virginia division manager.

A George's Creek Development.

The MANUFACTURERS' RECORD has authoritative information relative to the plans of Avery & Morgan of Frostburg, Md., for the development of coal properties in the George's Creek district. It is intended to develop four veins to a capacity of 1000 tons per day. For the present picks will be employed for mining purposes, but it is expected to install electric equipment in the spring of 1910.

To Develop West Virginia Coal.

Another company for the purpose of developing West Virginia coal lands has recently incorporated in that State. This is the Guyan Valley Coal, Land & Lumber Co., 701 American Trust Building, Cleveland, O. With reference to its plans the MANUFACTURERS' RECORD is advised that it has about 1600 acres of coal land and approximately 3600 acres of virgin timber

in the Chapmanville district of Logan county, West Virginia. Its capital stock is \$300,000, and it expects to expend at least \$50,000 for equipment, tipples, etc., to facilitate the development of the mines. No active work toward development will be undertaken before the spring of 1910. The company's officers include H. F. MacLane, president and general manager, and H. J. Whiteman, secretary.

A Tri-State Development.

An extensive purchase of coal lands in Virginia, West Virginia and Kentucky, embracing an aggregate of 28,000 acres, is reported to have been consummated by W. A. Ohley of Charleston, W. Va., and Mr. McKinney of Fairmont. It is stated that the deals involve a consideration of \$845,000, and that most of the property has heretofore been controlled by the Buchanan Coal & Coke Co. The property is located in Dickinson and Buchanan counties, Virginia, and reaches into McDowell and Wyoming counties, West Virginia, and into Eastern Kentucky. It is located on Norfolk & Western Railway and the Big Sandy branch of the Chesapeake & Ohio Railway.

Mecklenburg Mica and Mining Corporation.

Articles of incorporation have been filed for the Mecklenburg Mica and Mining Corporation of Petersburg, Va., with a capital stock of \$50,000 for the purpose of developing mica and feldspar mines, etc. Officers of the company include Thomas B. Thacker, president; Charles E. Smith, vice-president; James E. Thacker, secretary, and Richard F. Dyer, treasurer.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

China Wants Soda Fountain.

C. C. MacKee Company, Hongkong, China, writes the MANUFACTURERS' RECORD:

"Please put us in touch with firms manufacturing soda fountains, asking them to send us several sets of complete catalogues with illustrations of their soda-water outfits, from the cheapest corner pedlar stand up to high-grade equipments. We want their lowest prices, all discounts off, including cash discounts, boxed for export. There is a growing demand in China for these goods, and we frequently receive inquiries."

Wanted for Porto Rico Trade.

Martin Lopez, P. O. Box 148, San German, Porto Rico, writes the MANUFACTURERS' RECORD:

"I wish to correspond with the leading American manufacturers or jobbers with view to establishing an agency in this country for the sale of the following: Alcohol stores, furniture, pianos, toys, beds, watches, jewelry, condensed milk, safety razors, lamps, lanterns, bedsprings, confectionery, glassware, soap and hardware."

Paper Bag Machinery.

Emil Zerkowitz, Hungarian Commercial Councillor, 49 Exchange street, New York, writes the MANUFACTURERS' RECORD:

"I would respectfully request you to publish in your paper that Janos Krali of Szeged, Hungary, wishes prices of paper bag making machines for flour, cement, etc.; also blueprints and exact description of the machines, to be sent to his above address."

MECHANICAL

The Heine Safety Boiler Plant.

The design of a factory for building steam boilers and doing the kind of sheet-metal work allied thereto is not as intricate a problem as that of most other lines of manufacture. There were some interesting features, however, connected with

exclusive of the retaining walls, are glass. One size of window pane is used throughout, this being a commercial size, 12x16 inches. The advantage of this will be appreciated when it is understood there are over 22,000 panes in the several buildings. Wood is used only for window and door frames and doors, and the machine-shop floor.

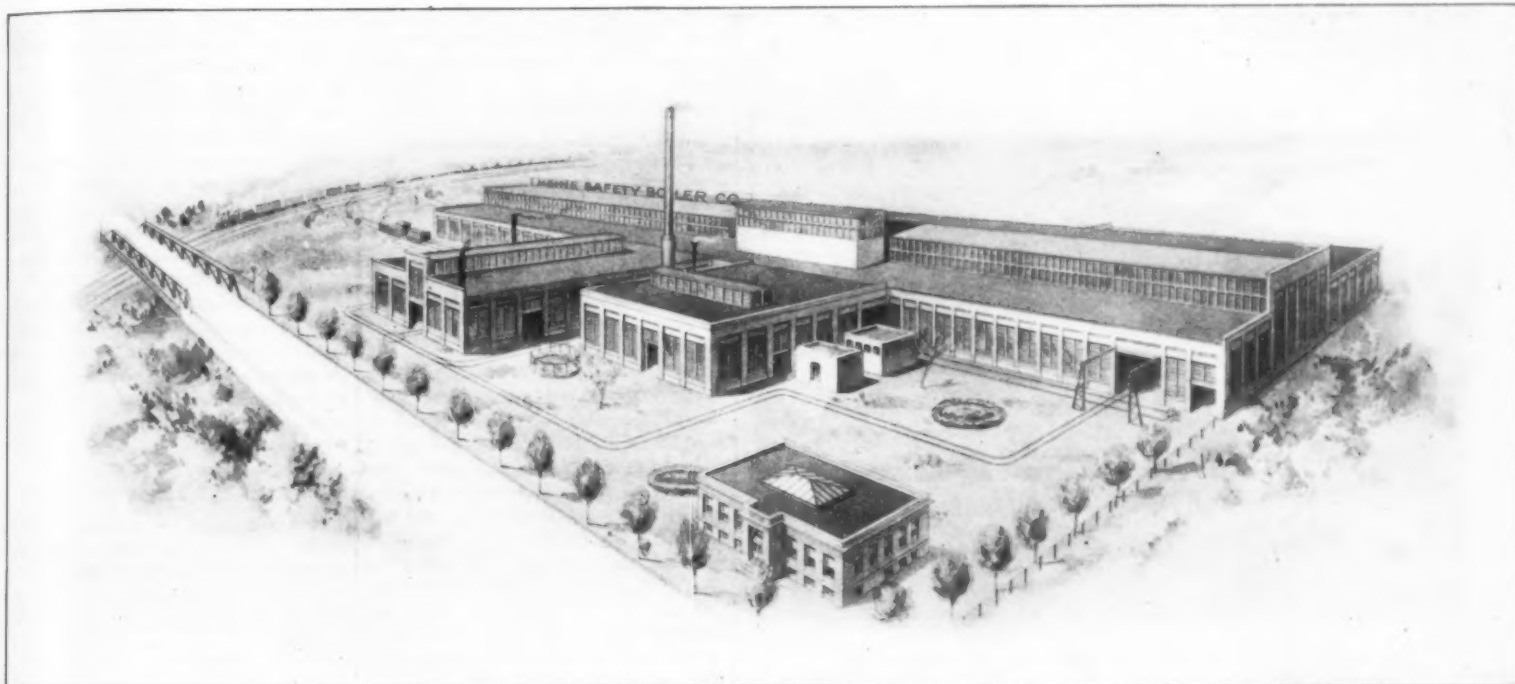
The main building is 450 feet long by

longitudinally, 60 feet transversely, and carry the 25-ton traveling crane. The spacing of trusses thus provides stiffeners at the center points of the main crane runways, and provides spans of only 12½ feet for the support of the smaller crane runways in the side bays. The roof of the middle bay is 14 feet higher than that of the side bays, thus forming the monitor in which the principal crane runs. (Fig.

feet from the power-house, where it is accessible with a minimum loss of time.

The oilhouse is a one-story brick building 12x20 feet, with a concrete roof and floor, located 20 feet from the toilet-house and 20 feet from the power-house, from which it can be quickly reached. It is intended solely for the storage of inflammable liquids, etc.

In the main shop are stored all the raw



THE HEINE SAFETY BOILER CO.'S NEW PLANT AT ST. LOUIS.

the building of a recent plant that may be of service to others. The plant is that of the Heine Safety Boiler Co. of St. Louis. See the three accompanying views.

The buildings consist of a main shop, flange shop (which is a wing of the main shop), power-house, toilet and washhouse, oilhouse and general office, totaling about two and one-half acres of floor space.

In general the raw material is received at the far end of the large building, that being the storage space. During the manufacturing processes it passes without reversal to the opposite end, where the completed boilers are stored and shipped. Tubes, not being needed until boilers are assembled, are received and stored at this end. The whole floor area of both main and flange shops is served by large or small traveling cranes, while a 24-inch gauge Koppel industrial railway completely encircles the structures, with connections in the interior, so that the handling of material of all kinds may be carried on with the least expenditure of time and energy.

Three sources of power for the operation of the equipment are used—electric, hydraulic and pneumatic. All the generating machinery is located in the power-house, which is placed in close proximity to the hydraulic and pneumatic tools, in order to reduce the length of the transmission lines, a saving both in first cost, frictional losses and maintenance. The great majority of the tools are electric driven, by individual motors wherever practicable.

The several buildings are all of the same general type, all structural details being standardized as far as practicable. At the outset it was determined to eliminate the fire hazard, and to build durably, and yet have a maximum of natural light in the interior, which meant large window space. Steel frame structures, with outside walls of brick, and reinforced concrete slab roofs were accordingly adopted, with full-length monitors in the middle in order to obtain additional light and ventilation. About 75 per cent. of the vertical areas,

143 feet wide for 250 feet of its length, and 180 feet for the remaining 200 feet. It is of this latter part that the retaining walls form one side and end. The narrow portion is divided into three longitudinal bays, the middle one being 60 feet wide and the two side ones 41½ feet. The increase to 180 feet is made by the addition of a fourth bay of 37 feet. The design of the steel frame follows standard practice,

2.) About the middle of the side toward the power-house is the riveting tower, 100 feet long by 24 feet wide, its roof being 55 feet above the floor. The steel work of this tower is framed into that of the building proper.

The flange shop is 62 feet 4 inches wide by 144 feet long, the construction being similar in every respect to that of the main building, to which it is connected, the end

material, supplies, etc. Most of this storing is done at the extreme rear end and side where there is the least light, yet where it is accessible and easily removed to any point where it may be needed. A three-ton Yale & Towne traveling crane on the transverse craneway heretofore mentioned serves the delivering track and places the boiler plate, which is the heaviest material received, directly into a series of racks that hold the plates in a vertical position, so that any plate may be withdrawn without unnecessary handling. The side bays are each served by four three-ton 14-foot Curtis traveling cranes, with hand-operated triplex blocks running on two adjacent parallel craneways in each bay hung to the bottom chords of the roof trusses.

The machine-shop equipment is mainly belt driven by a 20-horse-power motor through a line shaft.

All the steam, hydraulic and air pipes and electric wires are brought over to the flange shop from the power-house in covered trenches, and are so arranged that they can be easily drained in cold weather to avoid all danger of freezing. The air pipes have numerous connections at convenient points throughout the main shop, flange shop and machine shop.

The boiler plant consists of three Heine boilers of 250 horse-power each, set separately. Two of them are provided with Heine superheaters of two different capacities. They are all fired by hand, and have flat shaking grates. Back of the bridge walls of each furnace is a special fire-brick wing wall construction for the prevention of smoke, and which accomplishes the object very satisfactorily. The two boilers with the superheaters are set in brickwork in much the usual way. The third boiler has a concrete setting, with fire-brick lining. This was tried as an experiment to determine the availability of concrete construction for this purpose, and with the expectation that it will be more durable than brick and less liable to the



HEINE BOILER PLANT.—VIEW IN ENGINE ROOM.

being calculated for the dead and live loads imposed by the roof and traveling cranes, the runways for which are nine-inch I-beams hung to the lower chords of the roof trusses, with the exception of the large craneway, which is carried directly on columns. The roof trusses are spaced 12½-foot centers, carried on the columns forming the bays. The columns of the central bay are spaced 25-foot centers

wall being omitted so that the two structures are practically one.

The power-house is 75 feet wide by 79 feet long, being separated by a distance of 22 feet from the flange shop and 16 feet 10 inches from the main shop. In the main its construction is the same as that of the other two buildings.

The toilet and washhouse is located 16 feet 10 inches from the main shop and 20

cracking that all brick settings are subject to. The three boilers each differ from the others in dimensions, and all are arranged so that measurements and observations of all kinds may be conveniently made.

The company has in view a great variety of experiments to determine questions now in doubt and to develop further improvements in boiler practice. This will account for the boiler capacity being so greatly out of proportion to the rest of the plant, as one boiler will easily carry the load. A

ured by a wattmeter; two for the four-power circuit; one for the six lighting circuits.

Artificial lighting is mainly by 10 flaming arc lights uniformly distributed through the shops. They are hung to clear the cranes in monitor and bays, and in the latter are about 22 feet from the ground.

Although the buildings are free from fire risk to such an extent that it is considered unnecessary to carry insurance,



HEINE BOILER PLANT.—CENTRAL BAY OF MAIN SHOP.

straight horizontal sheet-iron breeching connects the boilers with the chimney located in the space between the boiler-house and the flange shop. This is a reinforced concrete chimney 66 inches inside diameter by 147 feet high, the foundation for which is 11 feet deep and 22 feet square at the base, a concrete monolith.

As the power requirements are not great, the installation of automatic stokers and coal and ash-handling machinery was not deemed expedient. Coal is, therefore, unloaded by hand into the space in front of the boilers, which has a capacity of about two cars.

A Hoppes exhaust steam feed-water heater with a capacity of 15,000 gallons of water per hour is placed on an iron support against the division wall. The air supply for the compressor is brought from the roof through a 12-inch sheet-iron duct to an air washer placed behind the boilers. A small duplex steam pump delivers water from the cistern to the heater, being regulated by a Fisher governor. A boiler tester of the injector type supplies hot water under the required pressure for the hydrostatic test applied to all boilers before shipment. This testing can also be done by pressure from the hydraulic system, and through proper connections by the boiler-feed pumps. An injector for feeding the boilers is provided for the use of the night watchman in order to avoid running the pumps.

The electrical energy is developed by a 162-horse-power four-valve non-condensing Ball engine 13x18 inches, running 200 R. P. M. A 100-kilowatt 220-volt three-phase 60-cycle Western Electric generator is directly connected to the engine. A 11-kilowatt exciter is belted to a pulley on the engine shaft. The voltage is maintained constant by a Tirrell regulator mounted on the switchboard. All wires in the engine-room are placed in conduits under the floor. The switchboard is completely equipped with all the measuring, controlling and distributing devices, and is divided into four panels; one for the generator, all current delivered being meas-

there is more or less inflammable material around in the shape of boxes, barrels and other packing material, as well as wooden railway cars. A simple fire system was therefore installed.

The site was purchased in 1907 and the general scheme worked out by the officers of the company in conjunction with Lichter & Jens, consulting engineers, St. Louis, who drew the plans and superintended the work. Much of the preparatory draughting work was done prior to the time when the decision was reached to proceed with the building of the plant.

The grading was done in June and July, 1908, more than 18,000 cubic yards of earth being excavated, at a cost of 16 cents per yard. This and the retaining walls were excavated by the Fruin & Colton Contracting Co. of St. Louis.

The steel work, amounting to about 790 tons, was furnished by the Riter-Conley Manufacturing Co. of Pittsburgh. It was all inspected by the R. W. Hunt Bureau of Inspections and Tests before leaving the factory.

The erecting of the steel was by the Midland Erection Co. The general contract for the completion of the main shop, flange shop and power-house was executed by the Fruin & Colton Contracting Co.

The total cost of these buildings was \$1.15 per square foot of floor area, excluding the retaining walls and grading, and \$1.29 including those two items. This does not include any of the equipment.

A Rapidly Increasing Trade.

Substantial increases in its orders and sales are reported by the Druid Oak Belting Co., manufacturer of fine oak leather beltings, 101-103 Balderston street, Baltimore, Md. The company's plant embraces a main building 35x60 feet, three stories high, and equipped with the most modern machinery for manufacturing belts. It supplies a large Southern trade, in addition to its other shipments, and states that its orders have more than tripled since beginning operations, with bright prospects for further increases. The company's product is pure oak-tanned leather belting,

manufactured in sizes from one-half inch to five feet wide, and said to be acid, water and steam proof.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Southern Building Activity.

Southern and Southwestern building operations during November continued brisk, and statistics from a number of representative cities indicate that substantial increases have been made in many localities as compared with operations during previous months. In Norfolk the record for the month is better than that of any previous month for several years. A total of 48 permits was issued, representing a cost of construction aggregating \$408,255, an increase as compared with November of last year of \$309,255. Operations in Richmond approximately doubled during November as compared with the same month last year, the estimate for the month showing a total of \$403,000, as against \$200,000 during November 1908. The total number of permits issued in Portsmouth numbered 25 for the month, representing a valuation of \$26,900. The record of operations in Atlanta during November shows no increase over October, although it is estimated that the aggregate value for the entire year will exceed the best previous year's record by \$200,000. The value of construction for which permits were issued in November is estimated at \$335,225, and for the 11 months of the year at \$4,954,850. Permits issued in Savannah during November included 50 one-story frame houses, three two-story cement houses, two stores and dwelling-houses combined, three two-story frame houses, and 13 permits for alterations and repairs. Permits were issued in Birmingham for the month to an estimated value of \$137,432, and for the first 11 months of the year to \$2,204,002. A total of 74 permits was issued in Jacksonville during the month, representing an estimated value of \$185,000, an increase over November, 1908, of about \$65,000. The estimated cost of building construction in Knoxville during the month is \$38,405.67. Permits were issued in Houston to the number of 95, representing a valuation of \$92,915, while the permits issued in Dallas numbered 136, representing a value of \$182,498. In Fort Worth a total of 61 permits was issued, valued at \$116,476. The total valuation of structures for which permits were issued in Oklahoma during November is estimated at \$702,770, while 77 permits were issued in Tulsa, with an estimated value of \$92,280. In Little Rock a total of 281 permits was issued during the month, valued at \$79,838, and in Kansas City the value of construction was estimated at \$980,070. A report recently issued by the inspector of buildings for the District of Columbia shows a total expenditure of \$14,726,784 for the fiscal year ended June 30, as compared with a total of \$6,073,483 during the fiscal year of 1908. The building inspector of Baltimore reports a total expenditure of \$497,000 for November, including the cost of new buildings, alterations and repairs.

Timber Development in Louisiana.

The Peavy-Byrnes Lumber Co. of Shreveport, La., reported by the MANUFACTURERS' RECORD last week as to develop 20,000 acres of timber lands near Oberlin, will establish double-band sawmill, planer, railroad, etc., to facilitate development. The plant will embrace a main building 250x60 feet, and will be equipped for a capacity of 100,000 feet of yellow pine lumber. Its location has not yet been determined, nor has an engineer been se-

lected, but with the railroad construction will cost approximately \$250,000. Bids are invited for complete equipment, including boilers and engine, electrical equipment, woodworking machinery, pumps, building material, mill supplies, etc. Officers of the Peavy-Byrnes Lumber Co. include A. J. Peavy, president; S. G. Sample, vice-president, and J. H. Byrnes, secretary and treasurer.

The Alta Lumber Co.

The MANUFACTURERS' RECORD has authentic information regarding the plans of the Alta Lumber Co. of Pulaski, Va., which was recently reported as having purchased about 8000 acres of timber from the Altoona Lumber Co. The purchase included a band and circular sawmill, railroad, locomotive, cars, etc., the plant being located about 12 miles from Pulaski. The company will manufacture hardwood and white pine lumber, laths, shooks and oak dimension stock, and is in the market for a 36-inch gauge locomotive of 20 or 25 tons, logging cars, steam log loader, etc. Its officers are F. O. Havener, president; E. Stringer Boggess, vice-president and secretary, and E. J. McGhee, treasurer and manager.

Exchange Elects Officers.

At a meeting of the Lumber Exchange of Baltimore the following officers were elected: President, John L. Alecock; vice-president, Theodore Mottu; secretary, John H. Manken, and treasurer, George B. Hunting.

American Capital in Canada.

More detailed information concerning the investment of United States capital in Canada has been collated by the *Monetary Times* of Toronto, which says:

"A form was sent to every United States firm having a branch in the Dominion, while letters and forms were also sent to 500 correspondents. Only a small percentage of these forms was returned with all the questions answered. Others were sent back on condition that the *Monetary Times* publish only the aggregate United States investment in Canada. Other companies stated that part of their capital was Canadian and part United States. After carefully checking these forms with information received from correspondents and the *Monetary Times* branch offices, the following figures represent approximately United States industrial investment in Canada:

168 companies, average capital	\$600,000	\$100,800,000
Investments in British Columbia		
mills and timber	50,000,000	
Investments in British Columbia	50,000,000	
mines	10,000,000	
Land deals in Alberta, etc.	10,000,000	
Investments in lumber and mines in Alberta	5,000,000	
Packing plants	5,000,000	
Implement distributing houses	4,000,000	
Land deals in British Columbia	2,000,000	
Total		\$226,800,000

"Notwithstanding that Canadian banks have more than \$200,000,000 on deposit in New York, says a Boston dispatch, Canadian development seems to attach more naturally to Philadelphia, Boston and London. It was Philadelphia capital which developed the water-power and industries around Sault Ste. Marie. It was Boston capital and enterprise which developed the Dominion Coal Co., the Dominion Iron & Steel Co. and the Shawinigan Power."

Secretary John R. Babcock of the Chamber of Commerce of Dallas, Tex., in his second edition of *Facts About Dallas*, estimates the present population of the city at 104,541, of whom 6951 are employed in industries with an aggregate capital of \$19,048,870 and an annual output of \$41,308,615.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

The Daily Bulletin of the Manufacturers' Record is published every business day in the year for the purpose of giving the earliest possible news in regard to new industrial, railroad and financial enterprises organized in the South. It is invaluable to contractors, manufacturers, engineers and all others who want to get in touch at the earliest moment with new undertakings or the enlargement of established enterprises. The subscription price is \$25 a year. All advertising contracts in the Manufacturers' Record extending over a period of three months include a subscription for the length of time of the contract to the Daily Bulletin.

BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—Totten & Ohl, 214½ North 20th St., Birmingham, engineers in charge of construction, awarded contract to Virginia Bridge & Iron Co., Roanoke, Va., for construction of 45-foot 7½-inch deck girder span for underpass of Trussville branch of Louisville & Nashville Railroad by Birmingham & Edgewood Electric Railway.

Ala., Mobile.—Louisell Lumber Co. (Wm. H. Louisell and others) will build 25 to 50-ton bridge. (See "Lumber-manufacturing Plants.")

Ark., Nashville.—Howard and Sevier counties will construct steel bridge across Saline River; in addition to this structure, Howard county will construct four steel bridges. Address County Commissioners of Howard county at Nashville or of Sevier county at De Queen, Ark.

N. C., Wilmington.—City and Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, will construct steel bridge across tracks at 6th St. estimated to cost \$15,000.

Tenn., Chattanooga.—Boulevard Commission awarded contract to Chickamauga Quarry & Construction Co. of Chattanooga to construct three concrete culverts; each 120 feet long; two 7½ feet in diameter and one 12 feet; cost \$3500.

Tex., Berclair.—Gollad and Bee County Commissioners at Gollad and Beeville, Tex., respectively, invite bids for construction of proposed steel bridge over Blanco River at Berclair.

Tex., Corpus Christi.—John Willacy of Portland, Tex., is reported as interested in plan to construct causeway across Nueces Bay; contemplates structure five miles long with 1000-foot spillway near center for flood water; storage water to be distributed for irrigating.

Tex., Dallas.—Dallas County Commissioners will open bids January 5 for furnishing and constructing steel highway bridge and viaduct over Trinity River, about five miles from Dallas; structure is to have span over river of 200 feet, with approaches consisting of 2520 feet of plate girder spans of 60 feet each and about one mile of gravel road; John L. Young, County Judge; J. F. Witt, County Engineer. (Recently noted. See "Machinery Wanted.")

Tex., New Braunfels.—Comal County Commissioners received plans, specifications and bids December 4 for low-water bridge over Guadalupe River at Gruem's Crossing; bridge 170 feet long; 18-foot driveway; concrete piers reinforced with steel and concrete floor; Adolf Stein, County Judge. (Recently noted.)

Va., Richmond.—Virginia Railway & Power Co. proposes to construct free viaduct over Broad St. from Church Hill to main section of city.

W. Va., Wheeling.—Bellaire, Benwood & Wheeling Bridge Co., previously reported incorporated, will construct steel bridge across Ohio River between Bellaire, O., and Benwood, W. Va.; capital stock \$500,000; incorporators are Charles A. Bowers, E. B. Bowle, Harold W. Campbell and others.

CANNING AND PACKING PLANTS

Va., New Church.—Eden Manufacturing Co. will establish plant for canning tomatoes and potatoes. (See "Lumber-Manufacturing Plants.")

Va., Suffolk.—J. M. Shackelford, Gloucester county, Virginia, and associates purchased site through Lloyd, Holland & Co., Suffolk, and will erect fish-packing plant; will construct wharf.

CLAYWORKING PLANTS

Okla., Mangum.—Pressed Brick.—Mangum Press Brick Co. incorporated with \$20,000 capital stock by D. J. Doyle, Jasper Ledbetter and Lee Hawkins.

Okla., Pawhuska.—Brick.—James Devlin, Iola, Kans., will establish brick plant.

Okla., Hobart.—Brick.—Hobart Pressed Brick Co. incorporated with \$10,000 capital stock; W. W. Rowland, president and treasurer; E. C. Murphy, vice-president and general manager; E. S. Jones, secretary; will erect building and equip for manufacturing brick.

Va., Alexandria.—Tile.—International Kiln Tile Corporation incorporated with \$200,000 capital stock; B. G. Smith, president, Washington, D. C.; A. Dumonier, vice-president, Alexandria; E. H. Taggart, secretary-treasurer, 1455 New York Ave. N. W., Washington, D. C.

COAL MINES AND COKE OVENS

Ala., Cullman.—Cullman Coal & Coke Co., Gerrit H. Ten Brook, president, will expend \$100,000 additional in opening up mines reported in September; to be ready for coal shipments by April 1; contemplates output of 1000 tons daily in near future.

Ky., Marlon.—Crittenden Company incorporated with capital stock of \$125,000 by W. Murray Sanders and associates.

Ky., Wilburg.—Cogan Creek Coal Co., E. M. Jones, president and general manager, James Bldg., Chattanooga, Tenn., will increase capital stock from \$25,000 to \$33,000 to purchase additional coal lands; present daily capacity is 100 tons of coal, which will be increased in 60 days to 200 tons and in 12 months to 400 tons.

Md., Barrellville.—Avery & Morgan (H. B. Avery, Troy, Pa., and William H. Morgan, Frostburg, Md.) purchased 2200 acres of coal land for development; will operate by pick at present; contemplate installation of electrical machinery later; estimated (increased) capacity, 1000 tons daily.

Tenn., Harriman.—Emory River Coal & Land Co. incorporated with \$25,000 capital stock by D. K. Young and others.

Tex., Athens.—Hi-Grade Lignite Co., recently reported incorporated with \$40,000 capital stock, has elected P. E. Miller, president; J. M. Hussey, vice-president and general manager, and J. E. Miller, secretary-treasurer; expects by March 1 to have daily capacity of 100 tons, and when mines are fully equipped, 500 tons daily.

Tex., McKinney.—W. M. Horton will consider, it is reported, development of coal mines.

Tex., Rockdale.—Wallace-Hicks Coal Co. incorporated with \$1000 capital stock by R. H. Hicks, John Hicks and R. C. Wallis.

Tex., Wichita Falls.—Belknap Coal Co. incorporated with \$200,000 capital stock by J. A. Kemp, Frank Kell, J. J. Perkins and others.

Va., Dickinson County.—W. A. Ohley, Charleston, W. Va.; Mr. McKinney, Fairmont, W. Va., and others, purchased (for \$345,000) 28,000 acres of coal and timber land in Dickinson and Buckhannon counties, Virginia, and extending into McDowell and Wyoming counties, West Virginia, and Eastern Kentucky; immediate development is planned.

W. Va., Bluefield.—Pocahontas Coal Co. incorporated with \$25,000 capital stock by H. C. Watson, H. K. Enstler, H. A. Harman and others.

W. Va., Chapmanville.—Guyan Valley Coal, Land & Lumber Co. incorporated with \$300,000 capital stock by H. F. MacLane, Hiram, Ohio; Paul Tiedemann, Gresham, Ohio; H. S. Geier, Cleveland, Ohio, and others.

W. Va., Clarksburg.—Jackson Land & Mining Co. incorporated with \$60,000 capital stock by Caroline M. Jackson of Clarksburg; M. J. Stiles, J. M. Jackson and others, Parkersburg, W. Va.

W. Va., Hiorra.—W. A. Stone, Unlontown, Pa., purchased Orr Coal & Coke Co.'s plant for \$125,000 and will organize company to operate same.

W. Va., Reedsville.—Merchants' Coal Co., George W. Atkinson, secretary, Maryland Trust Bldg., Baltimore, Md., arranging for proposed development of 8000 acres of coal land in Preston county.

W. Va., Fairmont.—Consolidation Coal Co., Continental Bldg., Baltimore, Md., is proceeding with development of Owings Nos. 1 and 2 mines; will work about 3000 acres land and have daily output of 5000 tons coal; approximate cost of plants, \$300,000; no contracts to be awarded; after further development will build steel tipples to cover five railway tracks; in spring will contract for 100 additional miners' cottages. Geo. T. Watson at Fairmont is manager West Virginia division.

W. Va., Welch.—Standard Pocahontas Coal Co., Cleveland, Ohio, awarded contract to Walter F. Patterson, Box 786, Pittsburg, Pa., for sinking one concrete-lined hoisting shaft and one timber-lined ventilating shaft. (Other facts previously reported.)

CONCRETE AND CEMENT PLANTS

Ala., Leeds.—Standard Portland Cement Co., main office at Charleston, S. C., will provide for further enlargement of plant; will not undertake construction until next spring.

Va., Broadway.—S. I. Bush Stone & Construction Co. incorporated with \$25,000 capital stock to manufacture concrete blocks; William Lake, Benning Rd., Washington, D. C., is president; J. J. Rhodes of Broadway, secretary-treasurer.

Va., Yorktown.—Jamestown Portland Cement Co. is understood to have awarded contracts for buildings and machinery of plant previously reported planned; has been constructing experimental plant, and contemplates final daily capacity of 5000 barrels of Portland cement; American Cement Engineering Co., 315 Fifth Ave., New York, is engineer in charge; H. E. Brown is in charge at Yorktown. Jamestown company was incorporated with capital stock of \$1,040,000, and its president is Lee B. Durstine, president of North American Life Insurance Co. of Newark, N. J.

COTTON COMPRESSES AND GINS

Ark., Morrilton.—Morrilton Cotton Oil Co., O. O. Scroggin, president, will open bids January 1 for erection of cotton gin recently noted; brick; fireproof construction; will install eight-gin outfit; cost \$10,000; daily capacity, 60 bales.

Tex., Rockwall.—Black Land Gin Co. incorporated with \$6000 capital stock by W. C. Bishop, H. C. Hoskins and N. L. Jackson.

Tex., Rockwall.—Rockwall Gin Co. incorporated with \$6000 capital stock by W. C. Bishop, H. C. Hoskins and N. L. Jackson.

COTTONSEED-OIL MILLS

Ga., Americus.—Farmers' Cotton Oil Co. will rebuild hullhouse recently noted burned; loss \$10,000; new building to be 90x100 feet.

Tex., Fort Worth.—Winfield Scott, Fort Worth, and W. B. Couch, Italy, Tex., will organize company to establish cottonseed-oil mill; four press; cost \$100,000.

Tex., Port Arthur.—A. Q. Petersen is interested in establishment of proposed cottonseed-oil mill.

DRAINAGE AND IRRIGATION SYSTEMS

Ark., New Gascony.—John M. Gracie will install \$5000 irrigating plant for development of 200-acre rice field; contract let to Layne & Bowler Company, Houston, Tex., for No. 8 pumping outfit; to Weber Implement Co., St. Louis, Mo., for 70-horse power Enterprise boiler and engine; Henry Loewer, engineer in charge. (Recently noted under Stuttgart, Ark.)

Miss., Natchez.—Farrar C. Martin and B. D. Sessions have placed order for pumping plant recently noted; will irrigate 1500 acres rice land.

Tex., Orange.—W. C. Woods will construct canal 1½ miles long, which will water 450 acres of rice lands.

ELECTRIC-LIGHT AND POWER PLANTS

Fla., Pensacola.—Pensacola Electric Co. will install 300-kilowatt motor generator set, 500 turbo-generator; Stone & Webster Engineering Corporation, Boston, Mass., engineer in charge.

Ga., Cordele.—D. G. Ziegler of St. Matthew, S. C.; H. S. Marshall of Illinois; G. W. Hatcher of Cordell and others applied for incorporation of company with capital stock of \$1,000,000 to construct water-power-electric plant on Flint River; plans to develop 2000 horse-power for transmission by electricity to Cordele and Americus.

Ga., Racoon.—Stewart-McCord Company of Savannah, Ga., contemplates development of water-power and construction of plans to transmit electricity for operating Racoon Mills (owned by company) and for lighting purposes.

Ga., Savannah.—Savannah Hydro-Electric Construction Co. incorporated with capital stock of \$200,000 by G. H. Miller, S. J. Platch and others; to build water-power-electric plant on Connochochee River, 40 miles from Savannah; D. G. Ziegler & Co., engineers in charge, 50 Mutual Life Bldg., Jacksonville, Fla. (See "Machinery Wanted.")

Ky., Hickman.—Mengel Box Co. received plans for power plant and engine-house at veneer mill; structure will have brick walls, concrete roof and floor, with steel window casings and doors; will require 150 square yards concrete.

Ky., Lexington.—First Methodist congregation contemplates installing electric-lighting and heating plant for edifice. Address The Pastor, First Methodist Church.

Ky., Louisville.—Home for Aged and Infirm is having plans prepared by McDonald & Dodd of Louisville for power-house; brick; cement floors; lavatory.

Miss., Meridian.—E. Cahn of Eagle Cotton Oil Co. and others will build electric-power plant. (See "Lumber-manufacturing Plants.")

N. C., Roxboro.—Roxboro Light & Power Co. incorporated with \$50,000 capital stock by J. C. Pass, J. A. Long, Jr., R. J. Teague and M. R. Long.

N. C., Apex.—City awarded contract to Carolina Electrical Co., Raleigh, N. C., for installation of lighting system; to include generator, engine, are and tungsten street lights, inside wiring material, incandescent lamps, transformers and meters.

Okla., Apache.—City voted issuance of \$8000 of bonds for construction of electric-light system; Southwestern Engineering Co., Oklahoma City, Okla., will furnish plans, specifications and estimate of cost; H. Peepers, Mayor. (Recently mentioned.)

Okla., Yukon.—Yukon Electric Co. incorporated with \$5000 capital stock by J. F. Kroutril, F. L. Kroutril and A. F. Dobry.

Okla., Oklahoma City.—Union Gas & Elec-

trle Co. incorporated with \$50,000 capital stock by F. L. Brandiger, C. S. Stephenson and E. B. Brown.

S. C., Charleston.—Consolidated Electric Light Co. will install 1000-kilowatt steam turbine; cost about \$30,000; has selected bidders.

S. C., Charleston.—Company incorporated by D. G. Ziegler, 50 Mutual Life Bldg., Jacksonville, Fla.; G. H. Miller, S. J. Platsch and others to build water-power-electrical plant on Edisto River, 28 miles from Charleston; capital stock, \$1,500,000; plans development of 12,000 horse-power for transmission by electricity.

Tenn., Nashville.—Kragon Electric Co. incorporated with \$5000 capital stock by J. Hugh Kesset, H. Edward Smith, Herman Cook and others.

Tenn., Winchester.—City has sold \$14,000 of bonds to improve electric and water plants; power-house is to be entirely remodeled and new water-wheels installed; Elk River furnishes water-power to generate electricity. Address The Mayor.

Tex., Marathon.—Texas Rubber Co. will install electric-light plant. (See "Ice and Cold-Storage Plants.")

Va., Bedford City.—City has postponed election from December 29 to January 4 for voting on issuance of \$100,000 of bonds for construction of hydro-electric plant on James River. Address The Mayor. (Recently noted.)

Va., Richmond.—Virginia Railway & Power Co., William Northrop, president, contemplates installing additional steam turbine, electric generating unit for emergency, at power station. (See "Railway Shops, Terminals, Roundhouses, etc.")

FERTILIZER FACTORIES

Ga., Cordele.—O. T. Gower contemplates establishment of fertilizer factory. (See "Mining.")

Tex., Houston.—Roberts Cotton Oil Co. will erect fertilizer factory and ice plant; cost \$25,000.

Va., Norfolk.—A. S. Lee & Sons Company will establish fertilizer plant; construction begun.

FLOUR, FEED AND MEAL MILLS

Ga., Tifton.—Tifton City Mills incorporated with \$5000 capital stock by A. F. Harrod, C. G. Bradham, J. J. Golden and C. C. Guest; plant completed.

La., Grand Cane.—G. W. Peyton proposes establishment of flour mill.

N. C., Lumberton.—Farmers' Union will erect rolling mill in Robeson county; 30 barrels capacity; cost \$3000 to \$5000; W. K. Culbreath, Lumberton, R. F. D. No. 6, may be addressed.

W. Va., Orlando.—Orlando Fruit & Produce Co. incorporated with \$10,000 capital stock by C. Z. Ruth, C. D. Bumgarner, Parkersburg, W. Va.; G. H. Allman, Orlando, and others; will operate flour mill, etc.

FOUNDRY AND MACHINE PLANTS

Ala., Queenstown.—Stoves.—Colonial Stove Works incorporated with \$30,000 capital stock; C. W. Shinn, president; C. T. Shinn, secretary-treasurer; will manufacture stoves, ranges, furnaces, castings, etc.

Ky., Franklin.—Machine Shop.—Enterprise Machine & Garage Co., College St., will establish general machine and auto-repair plant, etc. (See "Miscellaneous Enterprises" and "Machinery Wanted.")

Mo., St. Louis.—Iron Works.—Banner Iron Works, W. T. Koken, president, contemplates improvements to plant, including erection of buildings and equipping for manufacture of steel castings by converter process.

Tenn., Knoxville.—Foundry.—H. H. McNaughton, president of McNaughton Foundry Co., Charlotte, Mich., contemplates establishment of foundry.

Tex., El Paso.—Railway Axle.—John Babrick, representing American Differential Railway Axle Co., Los Angeles, Cal., contemplates establishment of plant.

W. Va., Plainfield, P. O. Wheeling.—Iron Works.—Sears & Riddle Iron Works, Wheeling, will establish plant at Plainfield.

W. Va., Wheeling.—Cars.—Pittsburg Construction Co., Pittsburg, Pa., is reported as planning construction of car works in Wheeling district.

GAS AND OIL DEVELOPMENTS

Ark., Little Rock.—Valley Oil & Gas Co. incorporated with \$25,000 capital stock by R. A. Campbell, T. J. Gay, J. D. Arnold and others.

Okla., Byron.—Sand Creek Oil & Gas Co. incorporated with \$5000 capital stock by W.

H. Millsbaugh, J. D. Howard, J. M. Hanne and A. J. Titus.

Okla., Bartlesville.—Quapaw Gas Co. awarded contract for installation of gas mains from its wells near Bartlesville to Vinita, Afton and Miami, Okla.

Okla., Muskogee.—Hamilton Petroleum Co. incorporated with \$100,000 capital stock by George C. Butts, Garfield Johnson and Sadie Fortson.

Tex., Houston.—Vincent Oil Co. incorporated with \$10,000 capital stock by D. R. Beatty, H. T. Staitl and John Hammon.

W. Va., Charleston.—Hills Oil & Gas Co. incorporated with \$50,000 capital stock by C. W. Dillon, Fayetteville, W. Va.; T. C. Townsend, Homer N. Hutchison, both of Charleston, and others.

W. Va., Huntington.—Brammer Oil & Gas Co. incorporated with \$50,000 capital stock by B. W. Foster, W. P. Floyd, G. L. Brammer and others.

W. Va., Kingwood.—Goodluck Oil & Gas Co. incorporated with \$10,000 capital stock by Emma Bishop, Harriet O. Varner, Willa M. Stricker and others.

W. Va., Lewisburg.—Sherwood Oil & Gas Co. incorporated with \$50,000 capital stock by H. J. Handley, S. M. Austin, R. B. Holt and others.

W. Va., Parkersburg.—Florain Oil & Gas Co. incorporated with \$25,000 capital stock by J. S. Harper, John F. Laird, R. E. Bills and others.

ICE AND COLD-STORAGE PLANTS

Ky., Louisville.—Frank G. Jones & Co., ice manufacturers, organized by Frank G. Jones and others; will establish plant; will soon begin erection of building; cost of plant \$40,000.

Ky., Louisville.—Crescent Ice & Storage Co. incorporated with \$30,000 capital stock by Theodore Evers, Henry Evers and P. N. Jolissaint.

La., New Orleans.—Audubon Ice Manufacturing Co. incorporated with \$30,000 capital stock by L. P. Hakenjos, Adolph Baumgartner, Frank R. Fox and others.

Miss., Greenville.—Consumers' Ice & Cold Storage Co. incorporated with \$50,000 capital stock by T. H. Hood, W. P. Kretschmar, both of Greenville, and O. H. Harney, New York.

N. C., Hamlet.—Hamlet Ice Co. will increase capital stock from \$50,000 to \$150,000.

Tenn., Chattanooga.—East Chattanooga Ice & Coal Co. incorporated with \$15,000 capital stock by O. L. Lockwood, W. H. Lockwood, A. R. Jones and others.

Tex., Beaumont.—Beaumont Ice, Light & Refrigerating Co. purchased site and will erect large capacity ice plant.

Tex., Marathon.—Texas Rubber Co. will establish ice factory and electric-light plant in connection with rubber works.

Tex., Houston.—Roberts Cotton Oil Co. will erect ice plant and fertilizer factory; cost \$25,000.

Tex., Teague.—Mexia Ice & Refrigerating Co., Jos. Nussbaum, president (to be known after January 1 as Central Ice & Bottling Co.), will build proposed 20-ton ice plant at Teague; machinery ordered. (See Mexia, Tex.)

Tex., Mexia.—Mexia Ice & Refrigerating Co., Jos. Nussbaum, president (to be known after January 1 as Central Ice & Bottling Co.), will increase capital stock to \$65,000; will build 20-ton ice plant at Teague, Tex., and bottling plants at Teague and Mexia. (Recently noted.)

IRON AND STEEL PLANTS

Ga., Rome.—Iron Furnace.—Silver Creek Furnace Co., H. H. Shackleton, general manager, has blown out iron furnace and will proceed with improvements recently mentioned; furnace is to be equipped for manufacturing charcoal iron, and present daily capacity of 60 tons of coke iron is to be increased to 120 tons; will be blown in about January 15; expenditure about \$40,000.

LAND DEVELOPMENTS

Ala., Birmingham.—Empire Realty Co. incorporated with \$10,000 capital stock; E. R. McDavid, president and treasurer; J. T. Palmer, vice-president; J. M. Corr, secretary.

Ark., Jonesboro.—H. D. Alfrey Land & Manufacturing Co. incorporated with \$100,000 capital stock by H. D. Alfrey, Dema Alfrey and Vera Kilpatrick.

Ark., Little Rock.—Midland Land & Improvement Co. incorporated with \$100,000 capital stock by P. A. Hildebrand, R. W. Polk, both of Little Rock, and T. J. Rittenhouse, Kansas City, Mo.

Ark., Siloam Springs.—Ozark Investment Co. incorporated with \$25,000 capital stock by Bert R. Farmer, A. W. Perrine, Tom Williams and others.

D. C., Washington.—Ellastone Terrace Improvement Co. incorporated with \$15,000 capital stock by Albert L. Teele, Rhode Island Ave. and 20th St. N. W.; Herman Burgess, 627 F St. N. W., and others.

Fla., St. Johns County.—Florida-Iowa Colonization Co., Burlington, Iowa, purchased 13,000 acres of land in St. Johns county, and will develop.

Fla., St. Johns County.—W. H. Keith, Peoria, Ill., and associates purchased 18,706.48 acres of land in St. Johns county, and will develop; will divide into small farms.

Ga., Summerville.—Pittsburg (Pa.) capitalists have, it is reported, arranged to purchase Murray Hill estate from E. J. O'Connor of Augusta, Ga., and adjoining lands (900 acres) for development as residential park. Mr. O'Connor telegraphs Manufacturers' Record that proposed development has not sufficiently advanced to warrant statement of details.

Ky., Louisville.—Ouerbacker Realty Co. incorporated with \$20,000 capital stock by J. P. Ouerbacker, George A. Ouerbacker and J. Garland Sherrill.

Ky., Louisville.—Read & Read incorporated with \$10,000 capital stock by H. H. Read, G. T. Read and William C. Fischer.

Md., Baltimore.—Realty Securities Corporation incorporated with \$300,000 capital stock; Harry E. Gilbert, president, 301 St. Paul St.; William H. Forsythe, first vice-president; Marion S. Pearce, second vice-president, 223 North Calvert St.; R. Frank Lawder, treasurer, 301 St. Paul St.; William G. Buckley, assistant treasurer, 3121 Chesapeake Ave.; John M. Hering, secretary and manager of agencies, 416 Mosher St.; will take over and continue development of Mont Alto, Lenox, St. Paul Realty Co.'s property, and Gilbert & Doyle.

Okla., Wainwright.—Wainwright Land Co. incorporated with \$8000 capital stock by W. H. Wainwright, C. L. Hurd, T. J. Cargile and C. J. Middleton.

Tenn., Chattanooga.—Ozburn Realty Co. incorporated with \$10,000 capital stock by W. B. Swaney, Charles N. Fox, W. D. D. Henderson and others.

Tex., Houston.—Houston Interurban Heights Development Co. incorporated with \$100,000 capital stock by I. M. Minor, S. Stewart, Homer Jones and W. E. Richards; will develop 4000 acres of land on Humble shell road.

Tex., Houston.—Bernard River Land Development Co. incorporated with \$100,000 capital stock by L. A. MacDonald, R. D. MacDonald and Arch MacDonald.

Tex., San Antonio.—Rinehart Construction Co. incorporated by Ira C. Rinehart, Paul A. Hoffman and D. H. Fallen; negotiating for site near San Antonio for establishment of industrial town.

Tex., Victoria.—Seadrift Townsite Co. incorporated with \$40,000 capital stock by H. W. Hertel, W. C. Hertel and John J. Frick.

Va., Norfolk.—W. C. Arrington & Co. incorporated with \$50,000 capital stock; W. C. Arrington, president; George Y. Old, vice-president; C. L. Old, secretary.

LUMBER-MANUFACTURING PLANTS

Ala., Mobile.—Louisell Lumber Co. (Wm. H. Louisell and others) has purchased tract of timber land on Pearl River; will build 20 miles logging road to tract; will also erect 25 to 50-ton bridge.

Ark., Double Wells.—G. T. Caldwell will probably rebuild lumber plant recently reported burned; may purchase small sawmill; has engine and boiler; daily capacity, 10,000 feet pine and oak. (See "Machinery Wanted.")

Ark., Helena.—W. H. Clem will rebuild planing mill recently reported burned; cost \$15,000.

Ark., Kimberly.—Diamond Lumber Co. incorporated with \$25,000 capital stock by O. G. Gardner, Z. A. Copeland and E. E. Hallman.

Ga., Savannah.—Bourne Lumber Co. incorporated with \$30,000 capital stock by William H. Lescoe J. and Walter J. Bourne.

La., New Orleans.—Pearlington Lumber Co. incorporated with \$100,000 capital stock; Joseph J. Favre, president; Isaac Toomer, secretary-treasurer.

La., Sabine Parish.—Wyatt Lumber Co., Wyatt, La., E. M. McDaris, president, St. Louis, Mo., increased capital stock to \$500,000, purchased 22,657 acres of timber land containing approximately 178,000,000 feet of timber, and will establish plant to develop.

La., Shreveport.—Peavy-Byrnes Lumber Co., Shreveport, La., has not decided on location of plant recently noted under Lake Charles; will erect sawmill 250x60 feet in size, with planing mill in proportion; construction in accordance with insurance regulations; will install double-band mill machinery; bids for machinery now open; cost of plant and railroad, \$250,000; daily capacity, 100,000 feet long-leaf yellow pine; architect not yet selected; A. J. Peavy, president; S. G. Sample, vice-president; J. H. Byrnes, secretary and treasurer. (See "Machinery Wanted.")

Md., Cumberland.—Oil Field Lumber Co. incorporated with \$10,000 capital stock by W. W. Hanley, George R. Wheeler, both of Cumberland; Clarence G. Crispin, Berwick, Pa., and others.

Miss., Fenwick (not a postoffice).—T. J. Spraggins & Son, Natchez, Miss., purchased 33 acres of land at Fenwick and will establish lumber mill.

Miss., Meridian.—E. Cahn, M. R. Grant, G. C. Kendall and others plan establishment of lumber mill, power and gas plants and construction of logging road.

Miss., Monticello.—Ozone Land Co. incorporated with \$10,000 capital stock by S. N. Hickman, H. M. Sims, H. P. Murdoch and others; will erect planing mill; will open machinery proposals soon; further plans not announced. (See "Machinery Wanted.")

N. C., Bowden.—Rowland Lumber Co. purchased Charles M. Betts Lumber Co.'s timber in Duplin county and will develop; will double mill capacity; output to be 175,000 feet of lumber daily.

N. C., Dunn.—Tilghman Lumber Co. incorporated with \$50,000 capital stock; M. H. Tilghman, president; H. L. Tilghman, vice-president; M. H. Tilghman, treasurer; G. M. Tilghman, secretary; will continue operation of lumber plant; daily capacity 55,000 feet rough and dressed lumber.

N. C., Greenville.—Cabinet Veneer Co. increased capital stock from \$50,000 to \$100,000.

N. C., Oxford.—Granville Lumber Co. organized with \$100,000 capital stock; N. N. Cupp, president, Oxford; J. F. Holloway, secretary-treasurer, Philadelphia, Pa.; purchased and will develop timber land in Granville county.

N. C., Raleigh.—R. D. Godwin Company incorporated with \$25,000 capital stock by R. D. Godwin, A. H. Arrington and Gilbert Crabtree.

N. C., Roxboro.—Roxboro Lumber Co. incorporated with \$50,000 capital stock; J. A. Long, Jr., J. C. Pass, R. J. Teague and M. R. Long.

S. C., Greenville.—Hunter-Wilson Lumber Co. incorporated with \$15,000 capital stock by S. L. McBee, S. M. Hunter and Robert Wilson.

Tenn., Benton.—King Lumber Co. incorporated with \$10,000 capital stock by M. C. King, Boon Crawford, J. H. McCoy and others.

Tenn., Unicoi County.—F. K. Bradshaw, Erwin, Tenn., is preparing to establish band mill to develop 20,000 acres of timber land.

Tex., Dallas.—Ragley-McWilliams Lumber Co. changed name to Ragley-Saner Lumber Co. and increased capital stock from \$300,000 to \$300,000.

Va., New Church.—Eden Manufacturing Co., capitalized at \$25,000, purchased four acres of land to establish planing mill and cannery.

Va., Norfolk.—Nichols Bros. incorporated with \$50,000 capital stock; C. K. Nichols, president; A. D. Nichols, vice-president, both of New York; J. F. McDaniel, secretary-treasurer, Norfolk.

Va., Pulaski.—Alta Lumber Co. (recently noted) purchased 8000 acres of timber; also acquired plant of Altoona Lumber Co., near Pulaski; will operate 12 miles of railroad; purchase includes band and circular mill, railroad equipment, etc.; will manufacture hardwood and white-pine lumber, lath, shooks and oak-dimension stock; will also deal in general merchandise; F. O. Havener, president; E. Stringer Boggess, vice-president and secretary; E. J. McGhee, treasurer and manager; office, Pulaski. (See "Machinery Wanted.")

W. Va., Charleston.—Kelleys Creek Timber Co., recently reported incorporated with \$25,000 capital stock, has purchased equipment for establishment of plant; W. L. Ripperet, president; J. E. Cunningham, vice-president; J. W. Adams, secretary; G. C. Ripperet, treasurer and general manager; company will conduct contract work; daily capacity, 50,000 feet of timber.

W. Va., Chapmanville.—Guyan Valley Coal, Land & Lumber Co. incorporated with \$200,000 capital stock by H. F. McLane, Hiram, Ohio;

Paul Tiedemann, Gresham, Ohio, and H. S. Geier, Cleveland, Ohio.

W. Va., Charleston.—Belle Mead Lumber Co. incorporated with \$5000 capital stock by G. E. Breece, L. Prichard, A. M. Prichard and others.

W. Va., Glenalum.—Davis Lumber Co. will, it is reported, purchase from J. F. Griffith, Honaker, W. Va., and Mr. Harding, Glenalum, timber on 15,000 acres of land.

METAL-WORKING PLANTS

N. C., Durham.—Cans.—Durham Can Manufacturing Co. incorporated with \$25,000 capital stock by T. H. Scoggins, Durham, and D. H. Whitaker, Oak Ridge, N. C.

Va., Norfolk.—Horseshoes.—Carney Adjustable Horseshoe Co. incorporated with \$25,000 capital stock by P. W. Carney and others; will establish plant for manufacturing patented horseshoe.

MINING

Ala., Talladega Springs.—Marble.—Bishop's Alabama Marble Co., John A. Bishop, president, now preparing to issue bonds for \$200,000 for construction of quarrying and sawing plant reported some weeks ago; controls 250 acres Coosa county lands bearing white marble.

Ark., Harrison.—Zinc.—Lon L. Brown is preparing to install developing plant for zinc deposits.

Ark., Little Rock.—Fuller's Earth.—Little Rock Refiners' Clay Co. incorporated with \$50,000 capital stock; L. E. Walther, president; Jay Kerr, secretary-treasurer; will operate fuller's-earth plant.

D. C., Washington.—Granite.—National Granite Co. incorporated with \$300,000 capital stock by Robert H. Young, Henry J. Finley, both of 824 Colorado Bldg.; Benjamin K. Focht, the New Willard, and others.

Ga., Cordele.—Phosphate.—O. T. Gover contemplates development of phosphate deposits and establishment of fertilizer factory.

Md., Baltimore.—Fuller's Earth.—Southern Fuller's Earth Co. incorporated with \$100,000 capital stock by H. D. Swengel, C. D. German, both of Warren, Pa., and H. E. Davis, Wilmington, Del.

Md., Marlottsville.—Limestone.—Wade H. D. Warfield is reported as preparing to install large plant for crushing limestone.

Mo., Cape Girardeau.—Iron.—Puxico Iron Co. incorporated with \$50,000 capital stock by Charles J. Crawford, Albert J. Meyers and Edward D. Hayes.

Mo., Joplin.—Lead and Zinc.—Samson Mining Co. will develop lead and zinc land on 40 acres of land and will construct mill; William Briggie, superintendent.

Mo., Springfield.—Lead and Zinc.—Metropolitan Mining Co. incorporated with \$5000 capital stock by W. P. Patterson, D. U. Sherman, W. M. Hansell and others.

Okla., Muskogee.—Delaware Mining Co. (recently reported incorporated with \$10,000 capital stock) has elected R. H. Beard, president; Robert J. Boone, vice-president; Garfield Johnson, secretary and treasurer; has properties in Cherokee and Creek Nations of old Indian Territory; plans for development not definite.

Tenn., Centerville.—Phosphate.—Volunteer Phosphate Co. will increase capacity of plant by installation of washer.

Tenn., Centerville.—Phosphate.—Cornwell Phosphate Co. has purchased Swan Creek phosphate mines and will develop.

Va., Arvonis.—Slate.—John L. Pitts, Scottsville, Va., purchased properties of Virginia Slate Co., consisting of lease on Edwards & Roberts quarry, machinery, fixtures, store building, land, etc.

Va., Strasburg Junction.—Limestone.—Standard Lime Co., Martinsburg, W. Va., purchased large tract of land containing limestone deposits and will erect limekiln.

W. Va., Man.—Stone.—Standard Stone Co. incorporated with \$5000 capital stock by Lilly M. Oakley, Warren Perry, A. Potts and others.

W. Va., Berkeley Springs.—Sand.—Henry P. Bridges, 1109 Calvert Bldg., Baltimore, Md., and Nelson Perin of Berkeley Springs and Charles and Chase Sts., Baltimore, purchased sand lands at \$60,000; will develop and build large mill and pulverizer; reported as to expend \$100,000.

MISCELLANEOUS CONSTRUCTION WORK

Ark., Cummins.—Retraining Work.—Linwood & Auburn Levee Board, Dumas, Ark., will construct bank protection work in vicinity of

Cummins to consist of 2000 linear feet continuous revetment and three bank dykes in bend above revetment about 500 feet apart; bank to be covered either with riprap or reinforced concrete; bids to be opened December 20. (See "Machinery Wanted.")

La., Avoyelles Parish.—Levees.—State Board of Engineers, New Orleans, La., awarded contracts to M. Betty, Marksville, La., to construct two levees on Red River—Celestin Marsum levee, requiring 12,000 cubic yards of dirt, at 12 cents per cubic yard, and J. Betty levee, calling for 8000 cubic yards of dirt, at 12½ cents per cubic yard.

Tenn., Memphis.—Levee.—W. L. Mosby of Memphis has contract to build 40,000 cubic yards of levee work in Reelfoot Levee district.

Tex., Marlin.—Heating and Cold Storage.—City Council granted franchise to I. J. Nathan to construct heating and cold-storage system.

Tex., Aransas Pass.—Channel, etc.—Aransas Pass Channel & Dock Co. will increase capital stock from \$100,000 to \$1,000,000; work is progressing on 25-foot channel from Aransas Pass to harbor; Chief Engineer Corrigan submitted plans and drawings for wharves, slips, docks and trackage. (Previously mentioned.)

Tex., Sabine Pass.—Jetty Improvement, etc. David M. Picton Company, Galveston, Tex., is lowest bidder at \$135,156 for improvement of jetties, dredging of harbor and deepening of pass that leads from Gulf to Orange, Beaumont and Port Arthur harbors.

MISCELLANEOUS ENTERPRISES

Ala., Gadsden.—Steam Laundry.—Emite Steam Laundry Co. will erect building; concrete; 24x75 feet.

Ala., Mobile.—Towing, Wrecking and Transportation.—Lapwing Towing & Wrecking Co. incorporated with \$15,000 capital stock; Thos. Dennis, president; Beauregard Roberts, vice-president and general manager; W. P. Burgett, secretary.

Ga., Atlanta.—Mercantile.—Ward-Truitt Company incorporated with \$150,000 capital stock by W. A. Ward, Alfred Truitt, both of Atlanta; J. M. Orr, Newnan, Ga., and others.

Ga., Atlanta.—Automobiles, etc.—Fulton Motor Exchange incorporated with \$10,000 capital stock by James J. Murphy, S. J. Prigden and William A. Sims.

Ga., Atlanta.—Engineering and Contracting.—J. B. McCrary Company incorporated with \$500,000 capital stock by J. B. McCrary, W. M. Fambrough, J. C. Cook and J. A. McCrary.

Ga., Cedartown.—Steam Laundry.—Cedartown Steam Laundry Co. organized by O. M. Rice, Guy Amos and F. F. White, all of Jacksonville, Ala.; will establish steam laundry.

Ga., Lagrange.—Buggy Repair.—R. E. Hawkins is preparing plans for erection of carriage and buggy repair shop recently noted; 51x100 feet; mill construction; cost \$3000; construction by owner.

Ga., Savannah.—Garage.—John Kenney will erect garage.

Ga., Valdosta.—Live-stock, etc.—Aytch Company incorporated with \$4000 capital stock by J. G. Cranford, Valdosta, and Mallory F. Horn, Hamilton county, Florida.

Ky., Franklin.—Garage, etc.—Enterprise Machine & Garage Co., College St. (recently reported incorporated with \$10,000 capital stock), will deal in automobiles and supplies and conduct general machine and auto repair shop; J. Megular, president; W. H. Winfield, secretary-treasurer; H. Mullinax, vice-president and manager. (See "Machinery Wanted.")

La., Hopedale.—Orange and Fruit Cultivation.—R. B. Hyman, Chicago, Ill., is organizing company to establish orange and fruit groves on 10,000 acres of land; will erect over 100 houses for tenants.

La., New Orleans.—Construction.—Success Machinery Co., 213 Canal-Louisiana Bank Bldg., incorporated with \$100,000 capital stock; contemplates erection of buildings; H. W. Hille, president; W. J. Turnbull, vice-president; L. Levedan, secretary-treasurer. (See "Machinery Wanted.")

Md., Baltimore.—Publishing.—Frank A. Munsey, the Baltimore News, Calvert and Fayette Sts. (recently noted as planning improvements), purchased site on Fayette St. adjoining present plant and will erect building 51x95 feet; 12 to 15 stories; Baldwin & Pennington, Professional Bldg., Baltimore, and McKim, Mead & White, 160 Fifth Ave., New York, will submit plans.

Mo., St. Louis.—Cemetery.—New Mount Olive Cemetery Co. incorporated with \$100,000 capital stock.

Miss., Cannonsburg.—Planting.—Coles Creek Planting Co. incorporated with \$30,000 capital stock by Ralph Brisland, Richard Reed, Gerard Braddon and others.

Miss., Ellisville.—S. J. Haney & Co. incorporated with \$7000 capital stock by S. J. Haney, P. M. Ikeler and others.

Miss., Hollandale.—Howard Russell Company incorporated with \$10,000 capital stock by F. H. Russell, Emma H. Russell and Effie D. Russell.

Miss., Jackson.—Florist.—W. J. Brown (recently noted to establish greenhouses) will erect building some time next year; 30x100 feet; will install boiler and piping. (See "Machinery Wanted.")

Miss., Moss Point.—Publishing.—Advertiser Publishing Co. incorporated with \$5000 capital stock by Jesse Bounds, J. J. McIntosh and C. C. Scott.

Miss., Tylertown.—Repair Shop.—A. H. Webb will establish general repair shop for repairing wagons and buggies, also horse-shoeing; will erect frame building; 50x60 feet; mill construction; cost of building \$330. (See "Machinery Wanted.")

Miss., Water Valley.—Spencer-Flake Company incorporated with \$5000 capital stock by S. S. Spencer, Lee A. Flake and others.

N. C., Asheville.—Publishing.—Cove Estate will erect building as newspaper plant for The Citizen; three stories; frontage 50 feet; plans by Smith & Carrier, Asheville.

Okla., Guthrie.—Parks and Fire Apparatus. City will vote December 10 on \$25,000 bond issue for park improvements and \$30,000 bond issue for improved fire apparatus. Address The Mayor.

Okla., Oklahoma City.—Publishing.—Oklahoma Baptist Journal incorporated with \$10,000 capital stock by A. W. McKenney, Oklahoma City; Otis Weaver, Ada, Okla., and others.

Okla., Oklahoma City.—Publishing.—Industrial Democrat incorporated with \$2500 capital stock by C. H. Armstrong, A. B. Cook and Ida Hayman.

Okla., Oklahoma City.—Paving.—Western Paving Co. incorporated with \$60,000 capital stock by W. E. Cunningham, R. D. Farmer and Buran House.

S. C., Greenville.—Carolina Hardware Co. incorporated with \$10,000 capital stock; R. A. McGrath, president; L. L. Barr, vice-president; W. E. Waters, general manager.

Tenn., Chattanooga.—Construction.—Dixie Construction Co. incorporated with \$15,999 capital stock by T. S. Hawser, J. R. Ryan, Paul Campbell and others.

Tenn., Knoxville.—Swan-Sullins-Brandon Company incorporated with \$75,000 capital stock by J. A. Swan, W. B. Sullins, S. B. Luttrell and others.

Tenn., Knoxville.—Garage.—East Tennessee Packing Co. awarded contract to L. A. Galyon, Knoxville, for erection of garage; brick; two stories; 65x119 feet; mill construction; first floor base concrete; plate-glass front; electric elevators; cost \$10,000; plans by R. Graf, Knoxville. (Recently noted.)

Tenn., Memphis.—Mercantile.—Bolton Mercantile Co. incorporated with \$5000 capital stock by W. C. Redman, J. A. Vallentine, Cleveland Lamb and others.

Tenn., Nashville.—Grain Elevator.—H. H. Hughes of Hughes Warehouse & Elevator Co. awarded contract to Schuyler & Schuyler, Nashville, for erection of warehouse and grain elevator; cost \$50,000.

Tenn., Nashville.—Cemetery.—Hollywood Cemetery Co. incorporated with \$100,000 capital stock by H. J. Brownell, W. W. Appleton, J. G. Leth and others.

Tenn., Nashville.—Chemical Analyses.—Brown Laboratory incorporated with \$5000 capital stock by Lucius Brown, George Campbell Brown, Percy Brown and others; chemical and bacteriological analyses.

Tenn., Nashville.—Mill Supplies.—Southern Mill Supply Co. incorporated with \$25,000 capital stock by B. Benkovitz, Frank Rives, D. T. Teal and others.

Tex., Beaumont.—Iron and Metal.—Southern Iron & Metal Co. incorporated with \$5000 capital stock by W. M. Crook, E. Marx, A. Bliden and others.

Tex., Benjamin.—Live-stock.—Johnson, Burnett & Co. incorporated with \$24,000 capital stock by J. S. Johnson, T. H. Burnett, A. H. Sams and others.

Tex., Bonham.—Hardware.—Thompson-Abernathy Hardware Co. incorporated with \$35,000 capital stock by A. J. Moore, Bland Smith and E. M. Thompson.

Tex., Dallas.—Publishing.—Laborer Publishing Co. incorporated with \$10,000 capital stock by George Clifton Edwards, R. H. Campbell and B. M. Hughes.

Tex., Ennis.—Printing and Publishing.—

Ennis Printing & Publishing Co. incorporated with \$9000 capital stock by G. C. Dunkerley, J. G. Castello and I. Jolesch.

Tex., El Paso.—El Paso & Southwestern Railway awarded contract to Frank Powers, El Paso, for erection of brick building for printing company financed by railroad company, and also for manufacture of printing supplies.

Tex., Houston.—Garage.—Henry House, 612 Travis St., awarded contract to H. F. Bailey, Houston, for erection of garage recently mentioned; plans by A. De Lisle, Houston; two story mill-construction building; size 80x90 feet. (See "Machinery Wanted.")

Tex., Houston.—Printing.—Company organized with \$30,000 capital stock; Andrew Dow, president; J. W. Hartley, vice-president; A. J. Dow, secretary-treasurer; has taken over Hartley Printing Co. and will enlarge and equip for lithographing, steel die, copper plate printing and manufacture of stationery.

Tex., Powell.—Mercantile.—Powell Co. incorporated with \$10,000 capital stock by J. O. Burke, W. H. Weaver, L. M. Warren and others.

Tex., Teague.—Hardware.—Goolsby-Lindsley Hardware Co. incorporated with \$5000 capital stock by J. H. Goolsby, J. E. Lindsley and J. K. Kennedy.

Va., Charlottesville.—Automobiles.—Albemarle Rapid Motor Transfer Co. incorporated with \$25,000 capital stock; A. D. Payne, president; A. D. Dabney, vice-president; A. L. Payne, secretary-treasurer.

Va., Lynchburg.—Crematory.—City contemplates construction of crematory; H. L. Shaner, City Engineer.

Va., Lynchburg.—Contracting.—Lloyd Corporation incorporated with \$300,000 capital stock; Mr. Loyd, president; F. S. Kirkpatrick, vice-president, both of Lynchburg; J. I. Hurt, secretary, Abingdon, Va.

Va., Norfolk.—Norfolk Building Supplies Corporation incorporated with \$200,000 capital stock; A. G. Glasgow, president, Richmond, Va.; C. Samson, Jr., secretary; J. A. Keeling, treasurer, both of Norfolk.

Va., Roanoke.—Mercantile.—Railroad Men Supply Co. incorporated with \$10,000 capital stock; W. L. Andrews, president; I. M. Andrews, vice-president; A. B. Stanley, secretary-treasurer.

W. Va., Charleston.—Transfer and Storage. Clarksburg Transfer & Storage Co. incorporated with \$10,000 capital stock by D. S. Lawman, C. P. Rush, Albert Lawman and others.

W. Va., Follansbee.—Lumber.—Follansbee Lumber Co. incorporated with \$25,000 capital stock by F. J. Morton, A. S. Harris, F. B. Mahan and others.

W. Va., Farmington.—Printing.—Independent Printing Co. incorporated with \$25,000 capital stock by Bert Guthrie, Farmington; A. B. Cooper, Pittsburg, Pa.; Philip Lawrence, Hugo, S. D., and others.

W. Va., Martinsburg.—Orchard.—Buck Hill Orchard Co. incorporated with \$30,000 capital stock by G. W. McKown, Alex. Clohan, W. W. Trout and others.

W. Va., Moorfield.—Branch Mountain Orchard Co. incorporated with \$30,000 capital stock by Willard Williams, S. A. McCoy, T. R. Cunningham and others.

W. Va., Wheeling.—Garage.—A. D. Howe Machine Co., 2154 Main St., contemplates erection of garage.

W. Va., West Union.—Mercantile.—West Union Store Co. incorporated with \$25,000 capital stock by H. W. Rymer, S. L. McLain, Ira E. Smith and others.

MISCELLANEOUS MANUFACTURING PLANTS

Ala., Gadsden.—Pneumatic Jacks.—Pneumatic Jack Co. of Louisville, Ky., organized with \$100,000 capital stock by J. A. Taylor, Birmingham, Ala.; considering Gadsden as location for plant to manufacture jacks for raising car trucks by air used for air brakes.

D. C., Washington.—Drugs.—Henry Evans Company incorporated with \$100,000 capital stock; Henry Evans, 922 F St. N. W., president; O. W. White, 1116 F St. N. W., vice-president; W. A. Johnson, secretary.

Ga., Macon.—Bottling.—Nova Kola Bottling Co. incorporated with \$10,000 capital stock by J. T. Dozier, J. A. Dozier and James Jackson.

Ga., Macon.—Mattresses.—Ivey's Mattress Factory incorporated with \$20,000 capital stock; will establish plant recently mentioned; J. K. Ivey, president and treasurer; W. M. Ivey, vice-president and manager; will manufacture cotton and excelsior mattresses; capacity, 200 per day. (See "Machinery Wanted.")

Ga., Rome.—Overalls, Tents, etc.—Saunders

Overall Factory (address until January 1 Dalton, Ga.) will establish factory recently mentioned; will erect 40x110-foot building; mill construction; erection by days' labor; hot-air heat; electric lighting; cost \$2000; has purchased building materials and machinery; will manufacture overalls, bags, awnings, tents, etc.

La., Arnaudville—Sugar Refinery.—Teche Sugar Co. organized by A. C. Durio (president), Arnaudville; H. P. Morris, New York, and others; propose establishment of \$1,000,000 sugar refinery.

La., Angola—Sugar Mill.—Penitentiary Board of Control, W. W. Heard, president, Baton Rouge, La., will establish sugar mill at Angola State Farm.

La., Arnaudville—Sugar.—Teche Sugar Co. organized with capital stock of \$1,000,000 to build sugar refinery; H. P. Morris of New York is reported as representing capitalists who will finance company.

La., New Orleans—Moving-picture Supplies. S. Nye Film Exchange incorporated with \$10,000 capital stock by S. Nye Bass, A. G. Bourdet and L. J. Frederic; will manufacture films, machines, etc., for moving-picture theaters.

La., New Orleans—Manufacturing.—R. J. Perkins and associates purchased site for establishment of manufacturing plant.

La., New Orleans—Glass and Paint.—Gulf Glass & Paint Co. incorporated with \$10,000 capital stock by R. P. Mead, J. A. Weckerling and George A. Stahler.

La., Tallulah—Rice Mill.—Abbott Bros., Crowley, La., will probably establish rice mill at Tallulah; also contemplate establishment of rice mill at Natchez, Miss.; Baton Rouge, Lake Providence, La., and several other points on Mississippi River.

Md., Baltimore—Labels.—American Label Co., Cross and Covington Sts., awarded contract to McLaughlin Bros., 915 Bolton St., Baltimore, for addition to plant; one story; 24x39 feet; slag roof; steam heat.

Md., Baltimore—Toilet Preparations.—Cucumber Specialty Co., E. D. Sawkins, president, 1819 Maryland Ave. (previously reported incorporated), leased space at 308 West Fayette St. and will equip for manufacturing toilet preparations.

Miss., Meridian.—E. Cahn, M. R. Grant, G. C. Kendall and others are planning to establish gas plant, etc.

Mo., Kansas City—Motor Cars.—Stafford Motor Cars Co. organized with \$100,000 capital stock by C. L. Stafford, Topeka, Kans.; C. L. Merry, W. H. Whitcomb and others; has taken over machinery and patterns of Stafford Motor Car Co. of Topeka, and will establish plant for manufacturing motor cars, etc.; will erect building.

Mo., St. Joseph.—Duncan Manufacturing Co. incorporated by B. F. Duncan, Grace M. Duncan and Robert L. Duncan.

Mo., St. Louis—Printers' Rollers.—Buckle Printers' Roller Co., Chicago, Ill., leased space in building at 18th and Pine Sts., 30x100 feet, and will manufacture printers' rollers.

Mo., St. Louis—Mortar.—St. Louis Mortar Co. incorporated with \$50,000 capital stock by Peter Schelete, Frederick Tiedemann and Francis Bartraw.

Mo., St. Louis—Slides.—Smith Slide Co. incorporated with \$3000 capital stock by Guy P. Smith, H. J. Friedman and George Bemmenstock.

N. C., Asheville—Talcum Puff.—Talcum Puff Co. increased capital stock from \$50,000 to \$100,000.

Okla., O'Keene—Gypsum Products.—Southwestern Cement Plaster Co. (recently noted to rebuild burned building) will erect three-story frame building; 60x210 feet; steam heat; electric lighting; steel elevator; composition roof; cost of building, \$25,000; machinery installed by J. B. Ehrsam & Sons Manufacturing Co., Enterprise, Kans.

Okla., Custer—Burners.—Tulsa Burner Co. incorporated with \$6000 capital stock by Charles W. McCoy, M. Muldon and M. J. Long.

Okla., Oklahoma City—Gas.—Union Gas & Electric Co. incorporated with \$50,000 capital stock by F. L. Brandiger, C. S. Stephens and E. B. Brown.

S. C., Anderson—Gas.—Anderson Gas Co. incorporated with \$100,000 capital stock by Arthur Medwedoff, Charlotte, N. C.; George C. Thompson, Spartanburg, S. C., and others; 30-year franchise to construct gas plant.

S. C., Charleston—Acid.—Virginia-Carolina Chemical Co., Richmond, Va., will establish \$10,000 acid plant.

Tenn., Chattanooga—Metal Melter.—Company is being organized with \$50,000 capital stock to manufacture metal melter to use

gas, crude oil, refined oil and gasoline for fuel. Address R. H. Evans, Box 18, Station A, Chattanooga. (See "Machinery Wanted.")

Tenn., Chattanooga—Bottling Plant.—J. F. Johnson, president and general manager Coca-Cola Bottling Works, 1107 Chestnut St., awarded contract to Cox & Rider, 121 Burch St., Chattanooga, for erection of building previously mentioned; two stories; brick; composition roof; concrete floor to first floor; electric lighting; Chickamauga Quarry & Construction Co., James Bldg., has subcontract for foundation work; cost \$5000; plans by Charles E. Bearden, Chamberlain Bldg., Chattanooga.

Tenn., St. Elmo—Medicine.—Chattanooga Medicine Co., recently noted incorporated by Benjamin Weir and others, will erect \$15,000 building. (See "Miscellaneous Structures.")

Tex., Dallas—Glass, Paints, etc.—E. J. Fry and Chas. Cobb, Jr., Marshall, Tex., awarded contract to M. S. Hasle Construction Co., Dallas, Tex., for erection of warehouse (previously noted) for Texas Glass & Paint Co. (See "Warehouses.")

Tex., Fort Worth—Overalls.—Texas Overall Co. increased capital stock from \$60,000 to \$100,000.

Tex., Harrisburg—Rice Mill.—Poinsett County Rice Growers' Association organized with A. D. Miller, president; John W. Rooks, secretary-treasurer; is promoting extensive rice cultivation and establishment of rice mill.

Tex., Houston—Bakery.—Nicholas Brunner will erect bakery; two stories; concrete; cost \$40,000.

Tex., Mexico—Bottling.—Mexia Ice & Refrigerating Co. (to be known after January 1 as Central Ice & Bottling Co.) will establish bottling plant at Mexia. (See "Ice and Cold-storage Plants," Mexia, Tex.)

Tex., Mt. Pleasant—Creamery.—J. H. Burnett, Wichita Falls, Tex., is organizing company to establish creamery.

Va., Newport News—Pythian Manufacturing Produce & Supply Co. incorporated with \$25,000 capital stock; T. J. Pree, president; W. H. Sales, secretary; G. W. Fitzgerald, treasurer.

Va., Norfolk—Bread, Pies, etc.—Connecticut Pie Co. incorporated with \$25,000 capital stock; C. A. Copperthill, president; E. J. Copperthill, secretary-treasurer.

Tex., Quanah—Creamery.—Quanah Creamery Co. incorporated with \$7000 capital stock by C. W. Hodge, A. Mosely, L. H. Wyman and others.

Tex., Teague—Bottling.—Mexia Ice & Refrigerating Co. (to be known after January 1 as Central Ice & Bottling Co.) will establish bottling plant at Teague. (See "Ice and Cold-storage Plants," Mexia, Tex.)

Va., Richmond—Patent Medicine.—Noah Remedy Co. incorporated with \$50,000 capital stock; F. A. Kidder, president, Boston, Mass.; W. S. Burton, vice-president; Noah L. B. Martin, secretary-treasurer, both of Richmond.

Va., Suffolk—Overalls.—Lloyd, Holland & Co. are promoting organization of company with \$10,000 capital stock to establish overall factory.

W. Va., Grafton—Glass.—Dominion Window Glass Co. incorporated with \$35,000 capital stock by Leopold Wambourg, Grafton; Joel G. Sayre, Walter A. Jones and Walter R. Jones, all of Columbus, O.

W. Va., Matoaka—Tannery.—Gleason-McVidley Tannery Co. will establish tannery.

W. Va., Parkersburg.—Interlocking Device. Interlocking Company incorporated with \$60,000 capital stock by A. G. Jackson, A. C. Adair, H. C. Jackson and others.

W. Va., Wheeling—Pulp.—National Pulp Co. incorporated with capital stock of \$1,000,000 by Edwin C. Ewing of Wheeling, Charles F. Humphrey and Thomas E. Evans of Washington, D. C.

W. Va., Wheeling—Automobiles.—Standard Automobile Co. incorporated with \$35,000 capital stock by E. J. Becker, George W. Row, C. E. Morris and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Panola (not a postoffice).—Alabama, Tennessee & Northern Railroad, William Toxey, chief engineer, Cochrane, Ala., will locate proposed shops at Panola.

Va., Richmond—Virginia Railway & Power Co., William Northrop, president, will expend about \$600,000 to purchase additional rolling stock and improve terminal facilities in Richmond and Manchester; plan to erect terminal passenger station, car barn and repair shops at 7th and Perry Sts., Manchester, to be of brick or concrete and cover site 300x120 feet; compressed-air apparatus is to

be installed for cleaning of cars; on property near New Reservoir, twin car barns of metal, concrete or brick construction, each 120x288 feet; also paint shop 75x90 feet, store-room 80x90 feet, blacksmith shop 40x60 feet, oil and sand houses, etc.; smaller buildings are to be of brick or concrete construction; at 29th and P Sts., station and waiting-room, car barn and shops for temporary repairs; at power and light department it is proposed to install additional steam turbine, electric generating unit for emergency.

ROAD AND STREET IMPROVEMENTS

Ala., Mobile.—Board of Public Works instructed Wright Smith, engineer to prepare specifications preparatory to asking for bids for repaving portion of Water St.; Mr. Wright estimates total yardage as 3764 and cost as \$6400.

Ark., Little Rock.—Pulaski and Lonoke counties are considering construction of macadam road from Little Rock to Lonoke; Pulaski county's share about \$5000. Address Commissioners of Pulaski county at Little Rock or of Lonoke county at Lonoke, Ark.

Ark., Little Rock.—Commissioners of East Second Street Improvement District instructed E. A. Kingsley, Superintendent of Public Works, to prepare plans and specifications for paving East Second St., and will advertise for bids, to be opened January 18. (Recently mentioned.)

Fla., Fort Pierce.—St. Lucie county voted issuance of \$200,000 of bonds for construction of rock roads. Address County Commissioners.

Fla., Miami.—Dade county will vote January 3 on issuance of \$75,000 road bonds. Address County Commissioners.

Fla., Pensacola.—City will pave Baylen St. with wood blocks; 20-foot center paving; contract will be awarded to United States Wood Preserving Co., 165 Broadway, New York.

Ga., Atlanta.—Street committee submitted favorable report on ordinance calling for paving of Forsyth St. with wood blocks; R. M. Clayton, City Engineer.

Ky., Lexington.—City will present bill to next Legislature authorizing issuance of \$500,000 of bonds for street improvements; John Skain, Mayor.

Md., Rising Sun.—Cecil county and State will grade and macadamize two-mile Rising Sun-Reed Pump road to connect with State road being constructed; cost about \$8000. Address County Commissioners, Elkton, Md.

N. C., Lenoir.—Lenoir & Blowing Rock Turnpike Co., Rufus L. Gwyn, secretary-treasurer, will open bids January 5 for grading and macadamizing three miles of road near Lenoir and macadamizing three additional miles to be graded by company; C. M. Miller, engineer, Salisbury, N. C. (Previously mentioned. See "Machinery Wanted.")

Okla., Claremore.—City awarded contract to New State Paving Co., Tulsa, Okla., at \$60,000 for 15 blocks of brick paving.

Okla., Oklahoma City.—Western Paving Co. of Oklahoma City has contract at \$55,793.45 to pave South Walker St.

S. C., Sumter.—City will pave 6000 square yards of sidewalks on Main St. with cement; bids to be opened December 21; W. Loving Lee, City Engineer. (See "Machinery Wanted.")

Tenn., Nashville.—Board of Public Works awarded contract to Uncle Hiram Roofing Co. to construct sidewalks and curbing on 16 streets, including Eighteenth Ave., Division St., etc.; Adamant Stone Co., for work on Nineteenth Ave. and Twenty-third Ave. South; Southern Roofing & Paving Co., on Third Ave. South, all of Nashville; total of 7900 square yards of sidewalk paving and 2000 linear feet curbing; amount available \$50,000. (Recently mentioned.)

Tex., Beaumont.—Texas Bitulithic Co., Dallas, Tex., has contract to pave portion of Magnolia St.; cost about \$17,000.

Va., Alexandria.—City has begun grading preparatory to proposed paving of about four squares on King St.; cost about \$18,000. Address The Mayor.

Va., Suffolk.—Nansemond County Supervisors will expend \$14,000 on road building.

Va., Pulaski.—Pulaski Magisterial District voted issuance of \$70,000 of bonds for road construction. Address Pulaski County Commissioners.

SEWER CONSTRUCTION

Ark., Little Rock.—City has engaged C. C. Brown, engineer, Indianapolis, Ind., to report on septic tanks, and he will recommend construction of sewer to convey effluent from

tanks in southwestern part of city to point beyond city limits.

Ga., Toccoa.—City will vote December 16 on issuance of \$18,000 of sewer bonds. Address The Mayor.

Mo., Cameron.—City is having preliminary survey made for construction of tile-pipe sewers; W. S. Shields, 140 Dearborn St., Chicago, Ill., is engineer.

Mo., Joplin.—City Engineer has prepared plans for sanitary sewer system to be constructed in West Joplin. Address City Engineer. (City recently mentioned as having voted \$50,000 of sewer bonds.)

Okla., Apache.—City voted issuance of \$16,000 of bonds for construction of sanitary sewer system; Southwestern Engineering Co., Oklahoma City, Okla., will furnish plans, specifications and estimate of cost; H. Peepers, Mayor. (Recently mentioned.)

Okla., Guthrie.—City will vote December 18 on issuance of \$10,000 each for construction of storm sewers on east and west sides of city. Address The Mayor.

S. C., Columbia.—Sewer Commissioners will invite bids until January 11 for extension of sewerage system; F. C. Wyse, City Engineer.

Tex., Laredo.—City awarded contract to A. Dentz & Bro., Laredo, at \$7000 to construct 24-inch pipe sewer; A. V. Woodman, City Secretary.

TELEPHONE SYSTEMS

Ky., Carlisle.—L. G. Griffiths, Louisville, Ky., purchased franchise to operate telephone system.

Ky., Carlisle.—East Tennessee Telephone Co. purchased franchise to operate telephone system.

Miss., Collins.—Mississippi Home Telephone Co., Geo. C. Graeber, president, Jackson, Miss., will not establish telephone exchange recently reported.

Miss., Seminary.—Mississippi Home Telephone Co., Geo. C. Graeber, president, Jackson, Miss., contracted with local company to establish telephone system throughout county to connect with long-distance lines to Meridian, Jackson and Gulfport, Miss., and New Orleans, La.; to be known as Covington County Telephone Co.

N. C., Charlotte.—Steele Creek Telephone Co. will be organized with J. L. Millwee, president, John R. Porter secretary-treasurer; will establish telephone system in Steele Creek township; has arranged with Southern Bell Telephone & Telegraph Co., Atlanta, Ga., for local and long-distance connections.

Tex., Marlin.—City granted franchise to Independent Telephone Co. to establish telephone system.

TEXTILE MILLS

Ala., Jacksonville.—Cotton Cloth.—Verlins Cotton Mills organized by Geo. P. Ide, A. H. Robbins and H. R. Rice; awarded contract to Guy Amos of Anniston, Ala., for erection of one-story 100x136-foot building; will equip with 200 looms for weaving cotton cloth. (Recently reported.)

Ga., Macon.—Underwear.—Southland Hosiery Mills will issue \$30,000 of bonds for improvements; present equipment, 41 knitting machines, 60 sewing machines, etc.

Ga., Raccoon.—Cotton Yarns.—Stewart-McCord Company of Savannah, Ga., purchased Raccoon Mills and will remodel into yarn mill; contemplates development of water-power to furnish electricity for operating plant.

N. C., Bladenboro.—H. C. Bridges and associates will organize company to build cotton mill; \$135,700 subscribed.

N. C., River Falls, P. O. at Graham.—Cotton Yarns.—River Falls Cotton Mill Co. plans construction of 2000-spindle plant; has not matured plans; J. W. Menefee, president. (Previously reported organized, etc., with \$200,000 capital stock.)

Okla., Lawton.—Cotton Cloth.—E. L. Shuford Manufacturing Co. incorporated with capital stock of \$500,000 by E. L. Shuford of Hickory, N. C.; Browne Cornelson of Oklahoma City, Okla., and R. E. Trospen of Lawton; plans initial mill of 10,000 spindles and 340 looms. (Noted in October.)

S. C., Rock Hill.—Print Cloth.—Aragon Cotton Mills increased capital stock from \$100,000 to \$500,000.

S. C., Great Falls.—Print Cloth.—Republic Cotton Mills now having plans and specifications prepared by J. E. Shirline, Greenville, S. C., for plant; will erect main building 659x135 feet, with two-story spinning room and one-story weaving room; will install 25,000 spindles, 650 automatic looms, etc., driven by 1500 electric horse-power; secretary and treasurer is Hal B. Mebane, Graham, N. C.

(Organization of company with \$600,000 capital, etc., reported in October.)

S. C. Greenwood.—F. S. Evans completed arrangements to organize cotton-mill company mentioned in September as planned.

S. C. Lockhart.—Brown Sheetting.—Lockhart Mills will add 10,000 spindles to mill No. 2 and will erect 20x50-foot addition to mill No. 1; understood contracts have been awarded.

S. C. Lowndesville.—James P. Gossett, Calhoun Falls, S. C., and associates plan organization of company capitalized at \$250,000 to build mill. Mr. Gossett telegraphs the Manufacturers' Record that full details will be announced when definite plans are determined.

S. C. Rock Hill.—Print Cloth.—Aragon Cotton Mills will increase capital stock from \$400,000 to \$500,000; present equipment, 14,336 ring spindles and 280 broad looms.

Tex., Marble Falls.—Cotton Cloth.—Granite Manufacturing Co. will install equipment of spindles and looms for manufacturing cotton cloth; will drive by electricity transmitted from water-power-electric plant company is now constructing; J. A. Smith of Charlotte, N. C., is interested.

Tex., McKinney.—Lone Star Cotton Mill, J. Perry Burris, president, plans construction of about 5000-spindle mill; brick building with sprinkler system for fire protection; producer-gas plant, dynamo and motors for power and light; bids wanted about January 1; manager and superintendent not selected; capital stock, \$200,000; organization, etc., reported lately. (See "Machinery Wanted.")

Tex., San Antonio.—Wool.—Rinehart Construction Co., care Ira C. Rinehart, plans establishment of woolen mill.

WATER-WORKS

Ala., Birmingham.—Tennessee Coal, Iron & Railroad Co., George G. Crawford, president, awarded contract to Dravo Construction Co., Pittsburgh, Pa., for construction of dam for proposed water-works; pumping station will have daily capacity of 25,000,000 gallons of water. (Other details reported in September.)

Ala., Montgomery.—City is considering plan for construction of system whereby water from Alabama River can be furnished to railroads and manufacturing plants for steaming purposes; water will be forced through mains laid for this specific purpose and complete separate pumping plant, equipped with electric pumps, will be installed on river's banks. In connection with this improvement it is also proposed to duplicate present pumping plant of Montgomery water-works, installing electric pumping plant at present station; old steam pumping engines will be retained for use in emergency; electric equipment will do entire pumping of water for domestic and household uses; A. R. Gilchrist, City Engineer.

Ark., Lake Village.—Justin Matthews, Little Rock, Ark., contractor for construction of water-works, has begun erection of tower and power-house and actual laying of pipes; Land & Hill, Little Rock, Ark., are engineers in charge. (Previously mentioned.)

Md., Hagerstown.—Washington County Water Co. will improve water-works.

Mo., California.—City voted issuance of \$30,000 of bonds for water-works. Address The Mayor.

Okl., Apache.—City voted issuance of \$30,000 of bonds for construction of water-works; Southwestern Engineering Co., Oklahoma City, Okla., will furnish plans, specifications and estimate of cost; H. Peeper, Mayor. (Lately noted.)

Okl., Broken Arrow.—City voted issuance of \$37,000 of bonds for construction of water-works; bids for construction will soon be invited. Address The Mayor. (Lately noted.)

Okl., Chickasha.—City awarded contracts for purchase of supplies for extension of water system; \$190,000 bond issue recently reported voted for extension of water and sewer mains; City Council decided, instead of awarding contracts for construction, to purchase supplies and have work done under direction of City Engineer.

Okl., Gotebo.—City will install water-works system recently noted; cost \$28,000; plans and specifications with City Clerk or at office of engineers, Archer, Rollins & Co., 534 Beals Bldg., Kansas City, Mo.; bids opened December 8.

Okl., Guthrie.—City will vote December 10 on issuance of \$50,000 of bonds for laying water mains. Address The Mayor.

Tenn., Winchester.—City will improve water-works. Address The Mayor. (See "Electric Light and Power Plants.")

Tex., Atlanta.—City will open bids December 20 for machinery and construction of water-works; Fountain-Shaw Engineering Co., Houston, Tex., in charge; Hugh Carney, City Secretary. (Recently noted. See "Machinery Wanted.")

Tex., Denison.—City Council has plans by Superintendent Berry for extension of water mains south of Day St. to cost \$40,000; extensions north of Main St. are also contemplated to cost \$22,500. Address The Mayor.

Tex., Electra.—City is prepared to grant franchise for piping water into town from spring four miles distant. Address The Mayor.

Tex., El Paso.—City will vote December 14 on issuance of bonds to purchase plant of International Water Co.; cost not to exceed \$327,000; Joseph U. Sweeney, Mayor.

Tex., Midland.—City voted issuance of \$50,000 of bonds for construction of water-works. Address The Mayor. (Recently mentioned.)

Va., Roanoke.—Roanoke Gas & Water Co. is proceeding with construction of pipe line to spring; line 13,000 feet in length; will erect 2000 concrete building and install machinery; no bids open; cost \$30,000 to \$35,000; no further bids needed.

WOODWORKING PLANTS

Ark., Hope.—Boxes, Crates, etc.—Huntington Wood Manufacturing Co., Huntington, Tenn., will establish plant for manufacturing boxes, crates and baskets.

Ark., Jasper.—L. W. Clark will establish stave mill. James York will be in charge.

Ark., Malvern.—Christian Kratz will rebuild shingle mill reported burned.

Ark., Rogers.—Furniture, etc.—Rogers Novelty Milling & Manufacturing Co. Incorporated with \$15,000 capital stock by Ira Prouty, O. B. Clark and G. P. Harbar.

Ky., Lexington.—Hogsheads.—Tobacco Hogshead Co. Incorporated with \$10,000 capital stock by D. W. Scott, Henry Lloyd and Milton Young; will manufacture hogsheads, barrels, hoops, etc.

Ky., Paducah.—Spokes.—Mutual Wheel Co., Moline, Ill., will establish plant for manufacturing wagon and buggy spokes.

Ky., Paducah.—Furniture.—E. W. Mammon, Evansville, Ind., proposes organization of company with \$50,000 capital stock to operate plant of Paducah Furniture Co.

La., New Orleans.—Sash, Doors, Blinds, etc. Green & Knight Manufacturing Co. Incorporated with \$10,000 capital stock by James M. Green, M. Thurston Knight and I. C. Knight.

La., New Orleans.—Sash, Doors and Blinds. Louisiana Sash & Door Co. organized with C. F. Hardie president, E. R. Greenlay vice-president, C. L. Dickey secretary-treasurer; will establish plant for manufacturing sash, doors and blinds; leased offices at 922-924 Common St. and purchased site 120x120 feet for erection of plant.

Mo., St. Louis.—Portable Houses.—Multi-Board Portable House Co., 4723a Olive St., incorporated with \$75,000 capital stock; Robert R. Brewer, president; Wm. Clendenin, vice-president; C. D. Coleman, secretary; Robert R. Brewer, treasurer; will manufacture multiple board portable houses, to be entirely of wood construction; has leased planing mill for present use; later will install machinery. (See "Machinery Wanted.")

N. C., Hendersonville.—Columns.—Company organized with \$10,000 capital stock by P. F. Patton, R. C. Clarke, both of Hendersonville, and G. H. Lambert, Asheville, N. C.; will establish plant to manufacture solid-bored wooden columns; initial capacity 100 columns daily.

N. C., Montezuma.—Bobbins.—Montezuma Bobbin Co. Incorporated with \$25,000 capital stock by R. H. Leonard, Mt. Airy, N. C.; Charles E. Harris, Montezuma, and others.

N. C., Murphy.—Chairs.—C. E. Wood, J. M. Vaughn and C. B. Hill are interested in organization of company with \$15,000 capital stock to establish chair factory.

N. C., Spring Hope.—Furniture, etc.—Nash County Manufacturing Co. will rebuild wood-working plant reported burned; loss \$8000.

Tex., Brenham.—Furniture.—George M. Hall proposes establishment of \$50,000 furniture factory.

Tenn., Nashville.—Lawn Swings.—Nashville Lawn Swing Co. Incorporated with \$3000 capital stock by A. M. Tippet, G. W. McElroy, G. W. Fowler and others.

Tex., Brenham.—Furniture.—F. W. Wood, W. A. Wood, Arthur Wageman and Will Hermann are promoting organization of company with \$50,000 capital stock to establish furniture factory.

Tex., Houston.—Furniture.—Myers-Spalt Manufacturing Co. will erect annex; four stories; 100x150 feet; cost \$50,000.

Tex., San Antonio.—Sash and Doors.—Rinehart Construction Co. Incorporated by Ira C. Rinehart, Paul Hoffman and D. H. Falien; plans establishment of sash and door factory.

BURNED

Ala., Birmingham.—Frank A. Girder's residence; loss \$8000.

Ala., Girard.—Girard Concrete Works.

Ala., Sheffield.—T. J. Eubanks' residence, owned by Mrs. M. Morris.

Ark., Malvern.—Christian Kratz's shingle mill.

Fla., Naranja.—Zapf Lumber Co.'s mill; loss \$15,000.

Fla., Winter Park.—Knowles Hall at Rollins College.

Fla., Jacksonville.—Flynn-Harris-Bullard Company and C. W. Bartleson Company's warehouse; loss of former, \$50,000; of latter, \$25,000.

Ga., Claxton.—Moore Block, owned by J. G. Moore estate; loss on building, \$10,000.

Ga., Milledgeville.—Newell House, dormitory of Georgia Normal and Industrial College.

La., Hackley.—C. A. Jenkins' sawmill and cotton gin.

La., Waynesboro.—Burke County Oil & Fertilizer Co.'s plant; loss \$5000.

La., Waynesboro.—Mrs. C. W. Johnston's residence.

La., Colquitt.—John Sharp's cotton gin.

Ky., Somerset.—Bybee Dry Goods Co.'s store; loss \$15,000.

La., Mer Rouge.—E. C. Vaughn's cotton gin.

Md., Baltimore.—Maryland Bank Building, 100 Hopkins Pl., loss \$25,000; Abraham Spear's two buildings at 102 and 104 Hopkins Pl., loss on buildings \$60,000; Cator estate's building, loss \$70,000.

Md., Funkstown.—John Schultz's Valentia Flouring Mill on Antietam Creek; loss \$5000.

Md., Govans.—Henry Schneider, Jr.'s, residence at Winston and Ivanhoe Aves.

Miss., Pickens.—Pickens Cotton Oil Mill Co.'s main building; loss \$40,000.

Mo., Charleston.—Southeast Missouri Ice, Light & Power Co.'s ice and cold-storage plant; loss \$10,000.

Mo., Greenfield.—Carl Guenther's hotel and bakery, loss \$10,000; Mrs. H. D. Hall's two buildings, loss \$6000.

Mo., Kansas City.—American Sash & Door Co.'s warehouse; loss \$70,000; F. J. Moss, general manager.

N. C., Aurora.—W. T. Rudnell's cotton gin.

N. C., Aurora.—W. T. Hudnell's cotton gin; loss \$300.

N. C., Lincoln.—Michael Gheen Manufacturing Co.'s woodworking plant; estimated loss \$35,000.

N. C., Lumberton.—Kingsdale Lumber Co.'s planing mill, drykilns, offices, store, warehouses and six dwellings; loss \$80,000.

N. C., Lumberton.—A. B. Fisher's residence; loss \$3000.

N. C., Spring Hope.—Nash County Manufacturing Co.'s woodworking plant; loss \$8000.

S. C., Camden.—Building owned by Mrs. E. F. Watkins, Spartanburg, S. C.; N. R. Goodale's store; Christmas & Levy's building; Jas. H. Burnes' building; Mrs. A. L. Watkins' building; F. E. Watkins' building; Sydney Smith's building; total loss \$100,000.

S. C., Chester.—L. Taylor Grant's cotton-house.

S. C., Greenville.—Gates Steam Laundry; building owned by Mary G. Cleveland estate; loss \$15,000.

S. C., Darlington.—L. S. Wellings' barn and stables; loss \$10,000.

S. C., Lancaster.—W. McD. Brown's cotton gin; loss several thousand dollars.

S. C., Orangeburg.—Julius Albrecht's stable; loss \$8000.

Tenn., Johnson City.—Exchange Hotel, conducted by W. W. Whalen.

Tenn., Johnson City.—M. P. Dyer's building; loss \$8000.

Tenn., Camden.—W. L. Morris' residence.

Tenn., Nashville.—Adolph Meyer's dwelling at 2212 Patterson St.; loss \$7500.

Tex., Dallas.—Two buildings owned by E. M. Kahn and occupied by H. J. Rein Millinery Co. and Beryald Bros. Dry Goods Co.; loss on buildings, \$2500.

Tex., Houston.—Jones-Baker Manufacturing Co.'s box factory; loss \$15,000.

Va., Berkley.—Chesapeake Knitting Mills damaged by fire.

Va., Alexandria.—Robert McKeown's saw-mill.

Va., Georgetown, P. O. New Church.—Methodist Protestant Church; loss \$5000. Address The Pastor, Methodist Protestant Congregation.

Va., Newport News.—S. A. Rehnach's residence at Merriman; loss \$8000.

Va., Ocean View.—J. W. Smith's Hotel and Shamrock Annex; J. W. Buchanan's Hotel; Cosmopolitan Hotel; Cosmopolitan Annex, occupied by E. B. Miers; Gem Cottage, owned by Mrs. Mary Scofield; total loss about \$20,000.

W. Va., Center Point.—Allen Bros.' store; loss \$10,000.

W. Va., Kermit.—Reitz-Martin Company's sawmill.

BUILDING NOTES

APARTMENT-HOUSES

Ark., Little Rock.—L. B. Leigh will erect apartment-house on site 50x140 feet.

D. C., Washington.—Matthew G. Lepley, 467 H St. N. W., Washington, prepared plans for apartment-house in Petworth; four stories; frontage 80 feet; brick and stone; four apartments of five and six rooms each on a floor; terrace floors; marble wainscoting; cost \$60,000; bids for construction have been invited.

D. C., Washington.—Azul Ford, 718 14th St. N. W., awarded contract to Charles A. Langley, 310 12th St. N. W., Washington, for erection of four-story brick apartment-house; plans by Frederick B. Pyles, Equitable Bldg., Washington.

D. C., Washington.—Liebman Bros., 344 Pennsylvania Ave. N. W., will soon award contract for erection of apartment-house at 18th St. and Kalorama Ave., to cost \$25,000; plans by Dan B. Miller, Washington.

Fla., Jacksonville.—Herman R. Finn will erect four two-story apartment-houses.

Ky., Paducah.—W. C. Ellis and Mrs. William Hughes will erect apartment-house.

Mo., Kansas City.—H. B. Lamonte will erect four-apartment brick apartment-house to cost \$5800, and another to cost \$7000.

Mo., St. Louis.—Victor E. Rhodes purchased site 200x133 feet and proposes erection of apartment-house.

Tex., Houston.—G. H. Fruehling will erect apartment-house; three stories; brick; hot and cold water; refrigerators; hardwood floors.

Tex., San Antonio.—Harvey L. Page has begun erection of proposed apartment-house; brick; three stories and basement; three flats of five rooms each on each floor; cost \$5000 to \$6000.

Tenn., Chattanooga.—W. C. Wilkey, care of Chattanooga Packet Co., 100 Water St., awarded contract to A. H. Smith, 312 Georgia Ave., St. Elmo, for erection of \$9000 apartment-house previously described; plans by Chas. E. Bearden, Chamberlain Bldg., Chattanooga; two-story frame structure with basement; hot-air heat; electric and gas lighting.

BANK AND OFFICE BUILDINGS

Ark., Blytheville.—Bank of Blytheville awarded contract to J. W. Brown of Blytheville to erect postoffice.

Ark., Little Rock.—L. B. Leigh will erect office building on site 25x140 feet.

D. C., Washington.—Appleton P. Clark, Jr., 605 F St. N. W., Washington, prepared plans for eight-story office building on site 25x100 feet on F St. between 6th and 7th Sts.

D. C., Washington.—R. N. Harper, president American National Bank, 1315-1317 F St. N. W., is having plans and specifications prepared for 12-story bank and office building for District National Bank at 1404 G St. N. W. (Recently mentioned.)

D. C., Washington.—Elias Heidenheimer, 1236 Pennsylvania Ave. N. W., has plans and specifications by R. S. Simmons, 931 F St. N. W., Washington, for office and store building at 525 13th St.; four stories; 30x100 feet; brick, stone and metal trimmings.

Fla., Orlando.—Orlando Water & Light Co. awarded contract to T. W. Mathews of Orlando to erect office building; brick; depth 125 feet.

La., Baton Rouge.—First National Bank and People's Trust and Savings Bank will have plans and specifications prepared by W. L. Stephens & Co., New Orleans, La., for bank building to cost \$40,000.

La., De Quincy.—J. S. Brice, John T. Perkins, J. M. Gill and others are interested in organization of banking company which contemplates erection of building.

Md., Baltimore.—Maryland National Bank will rebuild Maryland Bldg. at 100 Hopkins Pl. lately burned at loss of \$25,000.

Mo., Kansas City.—John T. M. Johnson bought 99-year lease on property having frontage of 47 feet and depth of 110 feet; will erect 12-story building to cost \$250,000 for use of National Reserve Bank, being organized by Mr. Johnson.

Okla., El Reno.—J. E. Bonebrake contemplates erecting office building; five stories; reinforced concrete; 100x108 feet; passenger elevators, electric wiring, gas, water, telephone connections, etc.; cost about \$100,000.

S. C., Spartanburg.—T. A. Green will erect 12-story office building, to cost \$225,000.

Tenn., Knoxville.—Holston National Bank, Joseph P. Gant, president, has not selected architect to prepare plans for 12 to 15-story bank and office building recently noted; steel-frame fireproof construction.

Tenn., Memphis.—Commercial Trust and Savings Bank, Abe Goodman, president, purchased site and will, it is reported, erect bank and office building.

Tex., Brady.—Brady National Bank will erect two-story bank building recently mentioned; first story, bank; second story, offices; 50x90 feet; probably fireproof, with steam or hot-water heat; cost within \$25,000; architect not selected; date of opening bids not set. (See "Machinery Wanted.")

Tex., Waco.—First National Bank has not selected architect to prepare plans for \$150,000 bank and office building recently mentioned; to be eight or nine stories; 50x105 feet; fire proof construction; other details not decided.

W. Va., Huntington.—Bruner, Roche & Co., Cincinnati, Ohio, are contractors for erection of Robson & Pritchard's 10-story office building previously described; fireproof structure; 40x160 feet in size; hot-water heat; elevators; plans by Elzner & Anderson, also of Cincinnati.

CHURCHES

Ala., Montgomery.—Catholic church is considering, it is reported, erection of memorial chapel; \$20,000 available. Address Rev. Father Savage, St. Peter's Church.

Ark., Batesville.—Presbyterian congregation will erect edifice. Address The Pastor, Presbyterian Church.

D. C., Washington.—Primitive Baptist Church will have plans by Speiden & Spelden, 1403 New York Ave. N. W., Washington, for edifice at Georgia Ave. and Shepherd St., Petworth.

Ga., Blythe.—Baptist congregation has begun erection of proposed edifice. Address The Pastor, Baptist Church.

La., New Orleans.—St. Cecilia's Church, Rev. Father Rieter, pastor, will erect brick edifice.

Md., Baltimore.—Protestant Episcopal Church will begin work December 16 on erection of edifice at University Parkway and St. Paul St., to be used by St. George's and St. Barnabas' congregations; structure will be of gothic architecture; one story and basement; 70x50 feet; chancel 30x26 feet; exterior walls of concrete incased in granite; seating capacity 500; heating and lighting plant to be installed in sub-basement; cost \$25,000; plans were prepared by Henry Vaughan, Boston, Mass., and revised by Edward H. Glidden, Glenn Bldg., Baltimore. Rev. Arthur C. Powell, 709 Park Ave., is chairman building committee. (Lately mentioned.)

N. C., Winston-Salem.—Methodist Episcopal Church, Rev. W. A. Lambeth, pastor, will erect edifice.

N. C., Shelby.—Building committee First Baptist Church, C. A. Jenkins, pastor, has not selected architect for erection of \$30,000 church edifice recently noted.

Okla., McAlester.—First Baptist Church has plans by Smith & Parr for erection of edifice recently noted; 80x108 feet; probably hot-air heat; electric lighting; cost \$30,000; will open bids about January 1.

S. C., Rock Hill.—M. E. Church South, H. R. Mills, pastor (recently noted to erect edifice), will build small \$1500 chapel.

S. C., Saluda.—Red Bank Baptist Church, Rev. J. E. Bailey, pastor, will have plans prepared by J. H. Casey, Anderson, S. C., for edifice; brick; main auditorium and four Sunday-school rooms, arranged so that entire floor space can be converted into one room with total seating capacity of 600; inclined floors; cost \$10,000.

Tenn., Cookeville.—Presbyterian Church, U. S. A., John T. Price, pastor, will open bids March 1, 1910, for erection of edifice recently mentioned; 40x80 feet; ordinary construction;

tion; hot-air heat; electric lighting; cost \$8000; architect not yet selected.

Tex., Atlas.—Baptist congregation will erect edifice. Address The Pastor, Baptist Church.

Va., Appalachia.—Methodist Episcopal Church South is preparing to erect edifice; sandstone; cost \$7000; M. L. Stallard, M. D. Collier and H. F. Whithead will receive bids.

COURTHOUSES

La., Jena.—Bids addressed to Henry E. Hardtner, president of Police Jury, La Salle parish, will be received until January 5, 1910, for erection of courthouse and jail; plans and specifications on file at office of Emile Well, architect, 616 Hibernia Bldg., New Orleans, or may be had on satisfactory deposit and agreement.

La., Vernon.—Jackson parish defeated appropriation for erection of courthouse. Address County Commissioners. (Recently mentioned.)

W. Va., Hamlin.—Lincoln county will rebuild courthouse recently reported burned; W. H. F. Curry, Clerk of Circuit Court, is chairman of committee in charge.

DWELLINGS

Ala., Gadsden.—C. C. Baxter, Birmingham, Ala., will erect 40 dwellings in South Gadsden; cost \$32,000 to \$40,000.

Ark., Searcy.—Dr. L. E. Mori awarded contract to E. C. Bowden, Judsonia, Ark., for erection of proposed dwelling; hot-water heat; electric lighting; cost \$3600.

D. C., Washington.—Moncure Burke, 1802 Wyoming Ave. N. W., purchased site at Cathedral and Connecticut Aves. and will erect residence.

D. C., Washington.—Thomas R. Ellerson, 607 14th St. N. W., and Thos. H. Pickford purchased site 90x241 feet at 1st and Q Sts. N. W. and will erect row of dwellings; colonial style; brick; six and eight rooms.

D. C., Washington.—Nathan Wyeth, 1517 H St. N. W., prepared plans for residence on 16th St. extended; four stories; stone and brick; tile roof; contractors estimating include George A. Fuller Company, Munsey Bldg.; Thompson-Starrett Company, Commercial National Bank Bldg.; Norcross Bros. Company, Colorado Bldg.; W. P. Lipscomb Company, 1405 F St. N. W., and John McGregor, 729 12th St. N. W., all of Washington.

D. C., Washington.—Mrs. Louise Taylor has plans by Hunter & Bell, 518 10th St. N. W., Washington, for dwelling at Cleveland Park; two and a half stories; frame construction; stone foundation.

Fla., Jacksonville.—Herman R. Finn will erect 10 cottages.

Ga., Gainesville.—Mrs. Mattie McD. Perry, Newton, Ga., will not at present erect dwelling recently noted.

Ga., Savannah.—Estate of E. C. Anderson, Jr., will erect three two-story double cement block dwellings.

Ga., Savannah.—H. L. Richmond awarded contract to E. F. Barrows, Savannah, for erection of residence on Elyod Heights; old English style; sweeping roof; upper portion half timbered; cement porches; plans by Percy Sugden, Savannah.

Ky., Catlettsburg.—Wayne Damron will erect residence.

La., Hopedale.—R. B. Hyman, Chicago, Ill., will erect over 100 dwellings. (See "Miscellaneous Enterprises.")

La., New Orleans.—Keenan & Weiss, 418 Hibernia Bldg., are preparing plans for erection of eight dwellings; California bungalow design; frame, shingle and stucco; tile roofs; ranging in price from \$4500 to \$6500.

Md., Baltimore.—Mortimer W. West, 223 St. Paul St., awarded contract to T. J. Flannery, Gwynn Oak and Hamilton Aves., Howard Park, Baltimore, for erection of three dwellings on Belle Ave.; two stories; frame; 24x26 feet; slate roof; steam heat; cost \$8000.

Md., Baltimore.—Garrett Park Methodist Episcopal Church awarded contract to John Cowan, 106 West Madison St., Baltimore, for erection of proposed parsonage at Monroe and Lexington Sts.; 33x34 feet; cost \$6000; plans by Archer & Allen, Central Savings Bank Bldg., Baltimore.

Md., Baltimore.—Merin & Abramson have plans by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for 11 dwellings at Brighton and 10th Sts.; two stories; 15x48 feet; porch fronts; facades of iron-spot brick; cost \$27,000.

Md., Baltimore.—Thomas J. Flannery, Gwynn Oak and Hamilton Aves., Howard Park, will erect row of 12-room dwellings at Howard Park.

Md., Baltimore.—Harry Woodall, 322 North

Charles St., will erect bungalow at Howard Park.

Md., Baltimore.—Cephas M. Lewis, 14 East Camden St., will erect dwelling at Roslyn and Piedmont Aves.

Md., Baltimore.—Frank H. Phelps, Fidelity Bldg., awarded contract to David C. Slonaker, Baltimore, for erection of cottage on Chelsea terrace; two and a half stories; frame; 27x33 feet; cost \$5000.

Md., Baltimore.—Frederick Menkert awarded contract to George R. Morris, Equitable Bldg., Baltimore, for erection of dwelling; two and a half stories; frame; 32x35 feet; slate roof; steam heat.

Md., Baltimore.—George A. Purcell awarded contract to Ramey Bros., Law Bldg., Baltimore, to erect cottage on Oxford Ave.; two and a half stories; frame; 28x30 feet.

Md., Baltimore.—Alexander McCallum purchased site in Alisa Ter. and will erect two cottages.

Md., Baltimore.—August Framme, Jr., Hamilton Ave., Hamilton, Md., purchased site on Hermosa Ave., Alisa Terrace, and will erect bungalow.

Md., Baltimore.—John Bagby will erect three-story brick and stone residence; three stories; cost \$16,000.

Md., Baltimore.—E. F. Woodall will erect two detached two-story frame dwellings; cost \$2200.

Md., Baltimore.—William T. Russell, Chelsea Ter., near Clifton Ave., purchased three sites in Walbrook, on Clifton Ave., 479x156 feet; Holly Ave. and 16th St., 270x194 feet, and 16th St., 172x146 feet, and will improve with number of dwellings; cost \$2500 each.

Md., Baltimore.—Charles R. Becker, 420 North Carey St., will erect dwelling at Garrison and Piedmont Aves.; stucco construction.

Md., Baltimore.—Robert L. Peed, 2813 West North Ave., purchased site on Roslyn Ave. and will erect bungalow.

Md., Catonsville.—Chas. H. Steffy, 110 Belvedere Ave., awarded contract to H. H. Geist Building Co., 208 Gough St. Ext., Baltimore, Md., for erection of dwelling at Ten Hills recently noted; 42x28 feet; 2½ stories; stone and stucco; hot water or furnace heat; gas and electric lighting; cost \$7000; plans by Clyde Friz, 11 East Pleasant St., Baltimore, Md.

Md., Eccleston.—John K. Shaw, 200 Woodlawn Rd., Baltimore, Md., has plans by W. L. Smith, Law Bldg., Baltimore, for residence; frame construction; will shortly award contract.

Md., Glyndon.—Morton P. Tottle, 1611 Park Ave., Baltimore, Md., awarded contract to G. Walter Tovell, Reisterstown, Md., for erection of dwelling; colonial style; plans by Bayard Turnbull, 12 East Lexington St., Baltimore, Md.

Md., Pikesville.—Abraham Weinberg, 2310 Eutaw Pl., Baltimore, Md., awarded contract to Gladfelter & Chambers, 2072 Woodberry Ave., Baltimore, for erection of proposed residence at Slade Ave. and East Rd., near Pikesville; ordinary construction; hot-water heat; electric lighting; slate roof; cost \$15,000; plans by Joseph Evans Sperry, Calvert Bldg., Baltimore.

Md., Towson.—Arthur L. Bosley, 217-219 North Calvert St., Baltimore, Md., awarded contract to Boyd & Huff, 941 North Bond St., Baltimore, Md., for two cottages on Allegheny Ave.; cost \$5000 each.

Miss., Biloxi.—Miss M. Harris has plans by H. N. Austin, Jackson, Miss., for erection of eight-room bungalow; frame; ordinary construction; electric lighting; cost \$8000. (Recently incorrectly noted under Gulfport, Miss.)

N. C., Durham.—George W. Watts will erect nurses' home in connection with Watts Hospital.

N. C., Greensboro.—Ernest Clapp and J. T. B. Shaw will erect seven-room residence.

N. C., Winston-Salem.—St. Paul's Episcopal Church, Rev. Henry Teller Cocke, rector, contemplates building rectory; ordinary construction; Mt. Airy granite; veneer; hot-air heat; cost \$4000; date of construction indefinite.

Tenn., Athens.—J. L. Emmerson will erect residence.

Tenn., Chattanooga.—Dr. W. H. Warren, 777½ Market St., awarded contract to John E. Davis, Harrison Ave., between Mabel and Houston Sts., Chattanooga, for erection of dwelling on Mission Ridge; two stories and basement; frame and stucco; tile roof; concrete floor to basement; hard pine interior finish; hot-air heat; electric lighting; cost about \$6000; plans by Charles E. Bearden, Chamberlaine Bldg., Chattanooga. (Previously mentioned.)

Tenn., Knoxville.—M. Finkelstein, 215 Gay St., Knoxville, will erect two dwellings; cost \$4000; furnace heat. (See "Machinery Wanted.")

Tenn., Knoxville.—Dennis Leahy will erect \$2700 residence.

Tenn., Knoxville.—Hugh Sanford will erect \$11,000 dwelling.

Tenn., Nashville.—W. W. Lawrence will erect residence.

Tenn., Knoxville.—D. L. Ross awarded contract to C. T. Orr, Knoxville, for erection of residence; two stories; eight rooms; cost \$3000; plans by Gredig & Lynn, Knoxville.

Tenn., Nashville.—R. C. Ewing, Columbia, Tenn., will erect dwelling; 10 or 12 rooms.

Tenn., Ridgedale.—T. I. Walters, 123 Dodds Ave., awarded contract to A. S. Johnson, 1102 George St., Ridgedale, for erection of three dwellings; frame; one story; shingle roof; cabinet mantels; hard pine interior finish; electric and gas lighting; cost about \$5000; one dwelling not to be erected at present.

Tex., Bay City.—E. J. Kilbride awarded contract to O. E. Hatchett, Bay City, for erection of dwelling recently mentioned; two stories; frame; gas and electric lighting; cost \$7000; plans by J. E. Large, Bay City.

Tex., Dallas.—Mrs. C. H. Briggs has plans by S. C. Skielvig, Dallas, for dwelling; two stories; 10 rooms; frame; cost \$5000.

Tex., Houston.—T. Pillot will erect 10-room dwelling; cost \$5000.

Tex., San Antonio.—T. C. Frost, Jr., will erect residence; two stories; brick; 11 rooms; cost \$27,000.

Va., Norfolk.—J. D. Andres, Norfolk, is lowest bidder at \$24,347 for erection of eight dwellings; ordinary construction; electric lights; furnace; plans by B. F. Mitchell, Norfolk. (Recently mentioned.)

Va., Norfolk.—H. G. Whitehead awarded contract to Lenoir & East, Norfolk, for erection of dwelling in Larchmont; cost \$5000.

Va., Richmond.—C. W. and J. Lee Davis will erect two-story detached brick dwelling and one two-story double brick tenement; cost \$7500.

Va., Richmond.—Mary A. Griffith will erect two double brick tenements and one detached brick dwelling; cost \$12,500.

W. Va., Clark.—Northfork Realty Co., A. Catzen, manager, Northfork, W. Va., will erect 30 buildings, principally dwellings.

W. Va., Princeton.—J. G. Snidow has plans by F. V. Deemer, Princeton, for dwelling.

W. Va., Wheeling.—J. G. Hearne, 1300 Market St., has plans by E. B. Franzhelm, Schmulbach Bldg., Wheeling, for residence; two and a half stories; brick, half timber and concrete; oak, birch and yellow pine finish; marble and tile floors; gas and electric fixtures; cost \$25,000.

W. Va., Wheeling.—Fred Cox, Woodsdale, P. O. Wheeling, has plans by E. B. Franzhelm, Schmulbach Bldg., Wheeling, for residence; two and a half stories; brick and stucco; oak and yellow pine finish; gas and electric fixtures; cost \$15,000.

GOVERNMENT AND STATE BUILDINGS

Ark., Booneville.—Sanatorium.—Bids (regular and alternate) will be received by board of trustees of Arkansas Tuberculosis Sanatorium at office of secretary, Dr. C. P. Meriwether, Little Rock, Ark. (to whom all bids must be addressed) until December 27 for erection of following buildings near Booneville, Ark.: Administration building, ward building, two "A" cottages, two "B" cottages, five tent houses, four cabins, superintendent's cottage. Bids to be accompanied by certified check for \$1000; plans, specifications and form of bid on file at office of A. Klingensmith, architect, Fort Smith, Ark., and of secretary, Southern Trust Bldg., Little Rock. Contractors desiring plans and specifications for exclusive use can secure same by depositing \$5 with architect. Jos. M. Hill, president of the board of trustees.

Ark., Little Rock.—Capitol.—C. L. Gray Construction Co., St. Louis, Mo., is lowest bidder at \$692,200 to construct dome, entrance, steps and general interior finish for completion of State Capitol; George W. Donaghey, Governor and ex-officio chairman of State Capitol Commission; Cass Gilbert, 11 East 24th St., New York, architect for reconstruction and completion. (Lately mentioned.)

Ga., Milledgeville.—Reformatory.—Prison Commission, G. R. Hutchens, chairman, will open bids December 15 for erection of reformatory building recently noted; 40x62 feet; brick; fireproof; steam heat; electric lighting; cost \$5000; plans by A. C. Bruce, Atlanta, Ga., on file at office of Commission at Capitol, Atlanta, and of Auditor at State

Farm; bond and half amount of contract required of successful bidder.

La., New Orleans—Postoffice and Courthouse.—Treasury Department awarded contract to Charles E. Monday & Co., Philadelphia, Pa., at \$168,557, to install mechanical equipment (except elevators) in U. S. postoffice and courthouse at New Orleans; this equipment includes plumbing, gasfiting, boiler plant, heating and ventilating, electric generating, conduit and wiring, vacuum cleaning and clock systems. (Previously mentioned.)

Tenn., Bristol—Postoffice and Courthouse.—Treasury Department, office of Supervising Architect, James Knox Taylor, Washington, D. C. Proposals will be received until January 12 for extension, remodeling, etc. (including plumbing, gasfiting, heating apparatus, electric conduits and wiring), of United States postoffice and courthouse at Bristol, Tenn., in accordance with drawings and specifications, copies of which may be had from custodian at Bristol, or at above office, at discretion of supervising architect.

HOTELS

Ala., Montgomery.—Florida Hotel Co., incorporated with \$90,000 capital stock by R. B. Meyer, Hendon B. Mabson and F. E. Meyer.

Ark., Blytheville.—Blytheville Hotel Co. awarded contract for erection of hotel to cost \$30,000; Eely & Weller, Royal Bldg., Memphis, Tenn., prepared plans. (Recently noted.)

D. C., Washington.—Harold A. Lewis, 1739 H St. N. W., has plans by B. Stanley Simmons, 931 F St. N. W., Washington, for hotel at 18th and H Sts.; six stories; brick and stone; fireproof; 137 rooms and 47 private baths; sun parlor on roof; cost \$250,000; site 58x163x130 feet, about 8000 square feet. (Previously mentioned.)

Fla., Tampa.—Harry G. Warner of Tampa and Everett H. Barney, Springfield, Mass., purchased site 105 feet square on which to erect hotel.

Ga., Summerville.—Pittsburg (Pa.) capitalists have, it is reported, arranged to purchase Murray Hill estate from E. J. O'Connor of Augusta, Ga., and build hotel costing \$500,000.

Ky., Louisville.—George M. Hodge, Chicago, Ill., reported as to erect two-story hotel at Anita Springs.

La., New Covington.—St. Tammany Hotel Co. will expend \$225,000 in erection of hotel building recently fully described; 300 rooms; concrete construction; tile roofing; electric lighting; steam heat; electric elevators; plans by W. L. Stevens Company, 1109 Hennen Bldg., New Orleans, La.; date of opening bids not decided.

N. C., Cleveland Springs.—Cleveland Springs Hotel Co. will rebuild burned hotel.

N. C., Shelby.—Central Hotel Co. will remodel hotel; James M. McMichael, Charlotte, N. C., is preparing plans and specifications.

N. C., Shelby.—Dr. S. S. Royster, Mooresboro, N. C., will erect hotel; 40 to 50 rooms.

Tenn., Chattanooga.—J. A. Wardlaw, care of Independent Ice Co., 24 William St., contemplates remodeling present brick mercantile building 1429-31 Market St. into hotel; plans not yet prepared.

Tenn., Dickson.—W. I. Choate has plans by C. K. Colley, Nashville, Tenn., for Mays Hotel; three stories; 50x125 feet; reinforced concrete and hollow concrete blocks; 40 bedrooms; lavatory in every room; baths; cost \$40,000.

Tenn., Knoxville.—Knoxville Leasing Co., C. B. Atkin, president, is considering erection of additional story to Atkin Hotel, in course of construction, making total of five stories; plans by Okel & Cooper, Montgomery, Ala.; contract awarded to Thomas & Turner, Knoxville. (Mentioned in September.)

Tenn., Nashville.—Hermitage Hotel Co., Robert L. Burch, president, will issue \$225,000 of bonds, which will make total of \$750,000 or \$800,000 available for erection of hotel previously mentioned; construction work is progressing; 12½ stories have been built and brick work is practically completed; \$286,000 has been expended.

Tex., Brownwood.—Southern Hotel Co. will open bids about December 15 for erection of four-story hotel building recently noted; 100x120 feet; fireproof construction; steam heat; electric lighting; electric elevator; cost \$100,000; plans by Waller, Shaw & Fields, Fort Worth, Texas.

Tex., Corpus Christi.—John T. Dickinson will erect 300-room hotel.

Tex., Stamford.—Stamford Townsite Co. will erect 22-room annex to Stamford Inn; plans accepted.

Va., Bristol.—Interstate Hotel Co. is preparing to complete hotel; construction suspended some time ago; present plans call for structure containing 150 bedrooms, 65 having private baths; \$40,000 has already been expended on basement and first story; is estimated that \$85,000 or \$90,000 more will be required.

Va., Fredericksburg.—Hotel committee, C. W. Jones, chairman, has not yet considered plans and specifications for hotel recently noted; contemplates erection of \$50,000 building.

W. Va., Clark.—Northfork Realty Co., A. Catzen, manager, Northfork, W. Va., contemplates erecting hotel to cost \$25,000 to \$30,000.

W. Va., Princeton.—T. T. Carter, Bluefield, W. Va., prepared plans for hotel recently mentioned; three stories; brick; cost \$20,000; D. W. Fulp, Bluefield, W. Va., and J. L. Forkner, Pilot Mountain, N. C., are contractors.

MISCELLANEOUS STRUCTURES

Ark., Bald Knob.—Store.—G. B. Owen awarded contract to E. C. Bowden, Judsonia, Ark., for erection of proposed store building.

Ark., Helena.—Clubhouse.—Country Club adopted plans for \$5000 clubhouse; colonial style.

Ga., Atlanta.—A. Ten Eyck Brown, Atlanta, has prepared plans for business building on Decatur St.; three stories and basement; brick and mill construction; fireproof throughout; cost \$30,000; first floor stores, upper floors lofts.

Ga., Atlanta.—Business.—Frank P. Rice awarded contract to Donaldson & Pearson, Atlanta, for erection of business building; three stories; brick; 110x32 feet; cost \$40,000; plans by Morgan & Dillon, Atlanta.

Ga., Atlanta.—Lodge.—Red Men's lodge will erect wigwam; five stories; cost \$75,000.

Ga., Brunswick.—Wholesale Grocery.—L. R. Aiken has not yet selected architect for business building recently noted; fireproof construction; electric lighting; cost about \$10,000.

Ga., Hawkinsville.—Store.—Newsome-Coleman Company awarded contract to W. D. McEachern, Hawkinsville, for erection of annex to store building; 24x40 feet.

Ga., Hawkinsville.—Business.—J. P. Watson awarded contract to W. D. McEachern, Hawkinsville, for erection of business building; 30x50 feet; one story and basement.

Grand Cane.—Store.—Geo. N. Parker will open bids last week in December for erection of store building; 25x75 feet; brick; ordinary construction; cost \$3500; plans not yet made. (See "Machinery Wanted.")

La., Jena.—Jail.—La Salle parish will erect jail and courthouse; bids to be opened January 5; Emile Weil, 616 Hibernia Bldg., New Orleans, La., architect; Henry E. Hardtner, president Police Jury. (See "Courthouses.")

Md., Baltimore.—Business.—Franklin P. Cator, 13-15 West Baltimore St., and associates will rebuild structures at 106-108 Hopkins Pl. reported burned; loss \$70,000.

Md., Baltimore.—Business.—Spear Bros. will rebuild rear wall at 104 Hopkins Pl. and erect building at 102 Hopkins Pl. to replace structures reported burned; loss \$60,000.

Md., Baltimore.—Store.—Baltimore Optical Co., 28 West Lexington St., awarded contract to Fred Decker & Sons, 1209 East Biddle St., Baltimore, for erection of store building at Liberty and Clay Sts.; four stories; 23x53 feet; plans by Haskell & Barnes, 407 Wilson Bldg., Baltimore. (Previously mentioned.)

Md., Frederick.—Lodge.—Mountain City Lodge, Knights of Pythias, is planning to erect lodge building; three stories.

Miss., Collins.—Store.—A. V. Easterling will erect brick store building; 30x110 feet.

N. C., Asheville.—Clubhouse.—Asheville Club is considering two propositions to erect clubhouse or erect \$3500 addition to present building; plans for latter prepared by Smith & Carruer, Asheville.

Okla., El Reno.—Business.—Bonebrake Hardware Co. will erect business building; five stories; reinforced concrete; cost \$20,000.

Okla., El Reno.—Business.—M. M. Engle & Sons will erect business building; two stories and basement; 50x75x108 feet; brick.

Okla., Oklahoma City.—Mercantile.—Owens & Welsh, 204 Majestic Bldg., have not decided on date of opening bids for erection of mercantile building recently noted; three to five-story reinforced-concrete structure; size 50x140 feet; electric lighting; plans by Layton, Smith & Hawk, Oklahoma City.

S. C., Camden.—Business.—Watkins Bros. will rebuild structures reported burned.

S. C., Camden.—Business.—James Burns will rebuild structure reported burned.

S. C., Spartanburg.—Clubhouse.—Country Club is arranging to erect \$10,000 clubhouse.

Tenn., Bristol.—Business.—Jake Carrier awarded contract to Abe Miller, Bristol, for erection of business building; two stories; brick; 30x60 feet.

Tenn., Knoxville.—Store and Office.—H. M. Green will erect store and office building; cost \$3500.

Tenn., Morristown.—Business.—N. H. Mills contemplates erection of business building; four or five stories; brick.

Tenn., St. Elmo.—Business Building.—Chattanooga Medicine Co. will proceed with erection of brick business and postoffice building recently mentioned; two-story-and-basement structure; 56x120 feet; composition roof; concrete basement floor; hard pine interior finish; steam heat; electric lighting; cost \$15,000; plans by Downing & Pringle, James Bldg., Chattanooga, who will award subcontracts and supervise construction work.

Tex., Brady.—Business.—R. J. Fitzgerald, 407 Main Ave., Brownwood, Tex., awarded contract to George Porter, Brownwood, for erection of business building recently mentioned; 70x90 feet; brick with stone trimmings; gravel roof; ordinary construction; electric lighting; cost \$7500; plans by L. B. Weinman, Fort Worth, Tex.

Tex., Caddo Mills.—Business.—First National Bank awarded contract to R. A. Long, Caddo Mills, for erection of three business buildings.

Tex., Dallas.—Business.—W. D. McMillan will erect business building; four stories; site 50x100 feet; lower floor for store and upper floors for quarters for traveling men.

Tex., Dallas.—Business.—H. Grossman purchased site 25x100 feet and will erect business building; three stories; brick.

Tex., Fort Worth.—Lodge.—Elks Building Association, William Bryce, president, purchased site 124x200 feet and will erect three-story lodge building.

Tex., Houston.—Department Store.—Leon Craig, New Chronicle Bldg., organized company to establish department store; will erect building; 6 to 10 stories; 150x250 feet; cost \$1,000,000.

Tex., Kaufman.—Business.—S. B. Perkins, Greenville, Tex., will erect business building; two stories; brick.

Tex., McKinney.—Business.—George W. Fox will erect three brick business buildings.

Va., Charlottesville.—Clubhouse.—National Beagle Club of America is considering purchase of site for erection of clubhouse.

Tex., San Antonio.—Business.—Estate of G. Redell Moore, J. H. Savage, executor, is having preliminary sketches prepared by Atlee B. Ayres, 228 West Commerce St., San Antonio, for erection of business building; 166x130 feet; two stories with foundation and carrying capacity for additional stories; fireproof construction; steam heat; electric lighting; probably freight elevator; cost \$75,000; contract not let.

Va., Norfolk.—Store.—Benjamin Altschul awarded contract to John Pierce, Norfolk, for erection of store building; 50x200 feet; one story; 28 feet high; mezzanine balcony; fireproof construction; hot-water heat; cost \$35,000; plans by Neff & Thompson, Norfolk.

Va., Petersburg.—Business.—Petersburg Benevolent Mechanic Association has plans by John Kevan Peebles, Norfolk, Va., for business building; seven stories; fireproof; cost \$125,000.

Va., Richmond.—Clubhouse.—Melvin Flegenheimer, Charles W. Cary, B. B. Arnold and others are interested in proposed erection of \$50,000 clubhouse for Republican Social Club.

Va., Richmond.—Charles H. Green, New York, in charge of exhibit of Plano Manufacturers' Association, has arranged to use Horse Show building for musical exhibit; will expend \$25,000 for improvements, including removal of skating rink and boxes from first floor and dividing same into soundproof rooms; will erect annex.

Va., Tenn., Bristol.—Merchandise.—B. J. James awarded contract to W. H. Crowell, Bristol, for erection of two business buildings recently noted; one building 20x80 feet; one 21x80 feet; brick; ordinary construction; steam heat; electric and gas lighting; cost \$7500; plans by H. Donot, Bristol.

W. Va., Fayetteville.—Business.—W. R. Bennett will erect two or three-story stone business building.

W. Va., Summersville.—Jail.—Nicholas County Commissioners awarded contract at \$23,093 to B. F. Smith Fireproof Construction Co., Pope Bldg., Washington, D. C., for erection of county jail and jailers' residence, and at \$3513 to West Virginia Heating & Plumbing

Co., Charleston, W. Va., for heating same; three stories; stone; broken ashlar work; 36½x59½ feet; ordinary construction; low-pressure steam heat; acetylene-gas lighting, 75 lights; water tank; cell work; plans by B. F. Smith, Pope Bldg., Washington, D. C. (Recently mentioned.)

W. Va., Summersville.—Jail.—Nicholas county awarded contract to B. F. Smith Fireproof Construction Co., 817 14th St. N. W., Washington, D. C., for erection of three-story stone jail and jailers' residence recently mentioned; cost \$23,000, exclusive of heating and plumbing; ordinary construction; size 36½x59½ feet; low-pressure steam heat; acetylene-gas lighting; water tank; cell work; plans by B. F. Smith.

MUNICIPAL BUILDINGS

Ga., Savannah.—Market.—Market Committee will soon invite architects to submit plans for improvement of City Market; John W. Howard, City Engineer.

La., New Orleans.—Engine-house.—W. J. Hardee, City Engineer, is preparing plans for engine-house to be built on St. Mary's St.; cost \$6000 or \$7000.

Mo., Willow Springs.—City Hall and Jail.—City is reported as having voted bond issue for city hall and jail. Address The Mayor.

N. C., Raleigh.—Building and Auditorium.—Municipal Building Commissioners, Charles E. Johnson, chairman, awarded contract at \$96,100 to John A. Carter Company, 417 Heed Bldg., Philadelphia, Pa., to erect municipal building and auditorium; contract does not include steel cell work, which will cost from \$3000 to \$5000 additional; P. Thornton Mayre, Atlanta, Ga., prepared plans; Barrett & Thompson are local architects. (See "Machinery Wanted.")

Tex., Houston.—Fire Station.—Proposals addressed to Dan C. Smith, Jr., City Secretary, Houston, Tex., will be received until December 20 for construction of two-story brick fire station; plans and specifications on file in office of City Engineer; certified check \$500; H. B. Rice, Mayor.

Va., Williamsburg.—Engine-house.—City awarded contract to Bozarth Bros. of Williamsburg to erect engine-house.

RAILWAY STATIONS

Ark., Argenta.—St. Louis Southwestern Railway, M. L. Lynch, chief engineer, Tyler, Tex., will award contract for erection of proposed freight and passenger station; additional property secured and plans for passenger depot will be revised; both buildings of brick.

La., Arcadia.—Vicksburg, Shreveport & Pacific Railway, D. D. Curran, general manager, New Orleans, La., will rebuild burned depot.

La., Donaldsonville.—Texas & Pacific Railway will repair and remodel passenger depot recently noted; frame; ordinary construction; electric lighting; one freight elevator; plans by B. S. Wathen, chief engineer, Dallas, Tex.; no contract to be let.

Md., Baltimore.—Pennsylvania Railroad, Gamble Latrobe, general agent, Union Station, will erect two-story frame temporary depot to be used until \$500,000 Union Station (recently detailed) is completed; contract awarded to Edward Brady & Son, 1109-1113 Cathedral St., Baltimore.

Okla., Tulsa.—Atchison, Topeka & Santa Fe Railway, H. C. Phillips, chief engineer, Los Angeles, Cal., and Midland Valley Railroad, J. H. Harris, general superintendent, Muskogee, Okla., are planning, it is reported, to erect passenger station.

S. C., Greenville.—Charleston & Western Carolina Railway, A. W. Anderson, general superintendent, Augusta, Ga., will, it is reported, erect depot and make other improvements at terminal station; expenditure about \$150,000.

Va., Richmond.—Virginia Railway & Power Co., William Northrop, president, will erect passenger station in Manchester and another at 29th and P Sts., Richmond. (See "Railway Shops, Terminals, Roundhouses, etc.")

SCHOOLS

Fla., West Tampa, Station Tampa.—Hillsboro county is arranging to erect school; brick; cost \$14,000; site 98x205 feet; L. W. Buchholz, County Superintendent.

Ga., Toccoa.—City will vote December 16 on \$7000 bonds for school improvements. Address The Mayor.

La., Dulac.—School Board awarded contract to C. C. Duplantis, Houma, La., for erection of rural school.

La., Franklin.—City will open bids January 1 for erection of graded school building re-

cently mentioned; brick structure; 57x99 feet 10 inches; steam heat; cost \$15,000; plans by Sayre & Baldwin, Anderson, S. C.

La., Robeline.—City will expend bond issue (recently noted) on high-school building now under construction; cost about \$15,000; probably hot-air heat; Mr. Carroll, contractor.

Md., Baltimore.—Board of Awards will receive bids at office of J. Sewell Thomas, City Register, City Hall, until December 15 for erection of school at Gough and Stiles Sts.; certified check on clearing-house bank for \$500, payable to Mayor and City Council; plans and specifications on file at office of Edward D. Preston, Inspector of Buildings, City Hall; bids to be enclosed in sealed envelope marked "Proposals for School No. 2;" J. Barry Mahool, Mayor. (Previously mentioned.)

Md., Baltimore.—Contractors estimating on erection of No. 2 school at Gough and Stiles Sts. include George Bunneke & Sons, 305 St. Paul St.; David Peoples, 213 North Calvert St.; Engineering Contracting Co., 207 American Bldg.; James F. Farley, Franklin Bldg.; Charles L. Stockhausen, National Marine Bank Bldg.; Henry S. Ripple, 1-7 Clay St.; B. F. Bennett Engineering Co., 123 South Howard St.; Joseph Schamberger, 2122 East Baltimore St.; Fred Decker & Son, 1209 East Biddle St.; Milton C. Davis, 5 Hopkins Pl.; David M. Andrews, Mt. Vernon Ave. and 26th St.; and P. J. Cushman, Law Bldg., all of Baltimore; plans by Otto G. Simonson, American Bldg., Baltimore, call for structure 151x81 feet; three stories; facade of pressed brick; cut-stone and terra-cotta trimmings; 24 classrooms; cooking school, manual training department and assembly hall in basement. (Recently mentioned.)

Mo., Columbia.—John L. Henry, secretary Board of Education, will receive bids until December 20 for erection of high-school and grammar school; plans and specifications on file at office of Board of Education and at office of William B. Ittner, St. Louis, Mo.

N. C., Durham.—Trinity College has received endowment of \$500,000 with which to erect medical school and pharmaceutical and dental departments.

Okla., Durant.—State Normal School (recently noted) will be of brick, stone and reinforced concrete construction; 110x160 feet; three stories; monolith system construction; straight steam heat; electric lighting; cost \$95,500; plans by Layton, Wynas, Hawk & Smith, Oklahoma City; contract let to Dougherty-Kerby Construction Co., Sulphur, Okla.

S. C., Columbia.—City awarded contract at \$39,700 to John J. Cain, Columbia, for erection of school recently mentioned; two stories and basement; auditorium with seating capacity of 600; red brick; granite and sandstone trimmings and copings; galvanized-iron cornice; gravel roof; following sub-contracts have been awarded: To W. B. Gulmarin for plumbing, Columbia Lumber Co. for mill work, both of Columbia; G. G. Ray & Co., Charlotte, N. C., for roofing, and Gulgnard Brick Co., Columbia, for brick.

S. C., Orangeburg.—South Carolina State Agricultural and Mechanical College, Thos. E. Miller, president, will ask Legislature for appropriation of \$40,000 to rebuild Brabham Hall, recently reported burned.

Tenn., Johnson City.—State Board of Education, Nashville, selected Johnson City as location for proposed East Tennessee Normal School.

Tenn., Tusculum, R. Sta., Greenville.—Tusculum College will erect auditorium and library hall.

Tenn., Memphis.—State Board of Education, Nashville, Tenn., has selected Memphis as location for proposed West Tennessee Normal School; city and county pledged site and \$300,000.

Tenn., Murfreesboro.—State Board of Education, Nashville, Tenn., has selected Murfreesboro as location for proposed Middle Tennessee State Normal School.

Tenn., Pulaski.—Pulaski Training School planning to erect \$10,000 dormitory.

Tex., Austin.—University of Texas is planning to erect \$200,000 library building; fireproof construction.

Tex., Bay City.—City will vote December 23 on \$5000 bond issue to erect school. Address The Mayor.

Tex., Beaumont.—Architects submitting plans for three proposed schools, to cost \$100,000, include M. L. Walker, Fort Worth, Tex.; S. Glover & Son, Houston, Tex.; J. T. Smith & Co., E. F. Ayres, both of Beaumont; William Drago, New Orleans, La.; A. C. Pigg, Green Briccoe, both of Houston, Tex.; Henry Phelps, San Antonio, Tex., and Rue & Logan, Port Arthur, Tex.

Tex., Boerne.—Boerne Independent School

Association building, contract recently noted awarded to J. V. Oppert Company, Comfort, Tex., will be two-story-and-basement structure; 53x105 feet; stone; ordinary construction; hot-air heat; lighting not decided; cost \$15,000; plans by Alfred Giles, San Antonio, Tex. (See "Machinery Wanted.")

Tex., Canadian.—School District No. 1 will issue \$20,000 of bonds for school building; J. L. Jennings, County Judge.

Tex., Canyon City.—State Board of Education accepted plans by Waller, Shaw & Fields, Fort Worth, Tex., for West Texas Normal School; mission style; three stories; 30 recitation-rooms, two lecture-rooms, gymnasium and natatorium, each 50x100 feet; auditorium with seating capacity of 1500 people; will open bids for construction about December 20; cost \$90,000 to \$100,000. (Recently mentioned.)

Tex., Dallas.—Mrs. Beaufort Evans, Spartanburg, S. C., and Mrs. L. W. St. Clair, Columbia, Mo., are promoting establishment of non-sectarian college for young ladies; propose to erect dormitory, auditorium and academic buildings; cost, including site, \$200,000.

Tex., Denison.—School trustees accepted plans for proposed Lamar School; 75x42 feet; two stories and probably concrete basement; brick.

Tex., Houston.—William M. Rice Institute, Edgar Odell Lovett, president, accepted preliminary plans by Cram & Goodhue, Boston, Mass., and New York, for administration building, two laboratories and power plant; Byzantine and Carolingian type of architecture; cost nearly \$1,000,000. (Previously mentioned.)

Tex., Mt. Pleasant.—City did not vote bonds to erect two schools as recently incorrectly noted, but will vote December 11 on \$32,000 bond issue for this purpose. Address The Mayor.

Tex., Oakwood.—Independent School District of Oakwood will erect \$10,000 brick school building; John A. Childress, president of School Board.

Va., Fredericksburg.—Committee of Building and Grounds, State Normal and Industrial School for Women, awarded contract at \$42,391 to J. C. Curtis, Fredericksburg, for erection of dormitory, and conditionally awarded contract at \$39,200 to Haynes Bros., Fredericksburg, for erection of science hall; plans by Charles M. Robinson, 10th and Main Sts.; Charles K. Bryant, both of Richmond, Va., and P. N. Stern, Fredericksburg. (Recently mentioned.)

Va., Graham.—City is preparing to erect school; cost \$24,000. Address The Mayor.

Va., Lynchburg.—School Board has petitioned for appropriation of \$200,000 for erection of high school and several grammar schools; plans by Frye & Chesterman, Lynchburg, call for high-school building 200x80 feet; three stories; brick; colonial pillars at main entrance; gymnasium, heating and ventilating plants, etc., in basement; auditorium with seating capacity of 606 people; proposed cost, \$100,000.

W. Va., Morgantown.—Board of Education will open bids December 22 for erection of proposed school building; 11 rooms; 73x106 feet; part fireproof construction; hot-air heat; mechanical ventilation; gas and electric lighting; cost \$36,000; plans by F. H. De Arment, Fulton Bldg., Pittsburg, Pa.; W. H. Boughton, consulting engineer.

Va., Williamsburg.—College of William and Mary to erect \$10,000 building.

W. Va., Woodlawn, P. O. Wheeling.—Board of Education of Triadelphia District will expend \$46,000 in erection of school building; contract recently noted awarded to Batson & Burton, Moundsville, W. Va.; 12 rooms; mill construction; pressed brick and stone with steel; hot-air heat; electric and gas lighting; heating contract let to Columbus Heating & Ventilating Co., Columbus, O.; plans by Chas. D. McCarty, Wheeling. (See "Machinery Wanted.")

THEATERS

Fla., Tampa.—E. M. Gresson will erect theater and store building; stores on first floor and theater on second; incline to second floor; theater to have seating capacity of 1100; cost \$35,000.

Md., Baltimore.—James L. Kernan, 605 Union Trust Bldg., proprietor of Hotel Kernan and Maryland Theater, will erect roof garden and theater on roof of structures named; garden covered with roof having glass sides and having seating capacity of 1800; besides this there will also be open garden with bandstand, etc., and dining-rooms; entire structure of steel and concrete; fireproof; 15,000 incandescent lights and six electric fountains; four high-speed electric elevators with capacity of 30 passengers each; four concrete staircases; during

winter roof theater will be heated with steam. Theodore W. Lamb of New York prepared plans.

Md., Baltimore.—Herman Hackerman of Hackerman Bros., 1204 Patterson Ave., will erect moving-picture theater at 1202-1204 Patterson Ave.; building on site will be used and addition 26x45 feet erected in rear; cost \$1200; plans by C. E. Anderson, Law Bldg.; contract awarded to T. F. McIntyre & Son of Baltimore.

Md., Baltimore.—A. A. Brager, 229-237 North Eutaw St., and Robert H. Baum, manager New Pickwick, 321 Forest road, Roland Park (Station L, Baltimore), are considering erection of moving-picture theater at Light and German Sts.

Mo., St. Louis.—Shortal, Culp & Co. sold site 142x115 feet; purchaser will, it is reported, erect moving-picture theater to cost \$20,000.

Tenn., Nashville.—Interstate Amusement Co. purchased Board of Trade building and will remodel as theater.

Tenn., Knoxville.—Standard Knitting Mills awarded contract to J. M. Dunn & Son of Knoxville to erect warehouse; three stories; 40x193 feet; brick; mill construction; cost \$10,000; construction begun.

Tenn., Nashville.—Jake Wells, Richmond, Va., and associates will erect theater; fireproof; seating capacity 1500; Okel & Cooper, Montgomery, Ala., and Nashville, Tenn., prepared plans; Nick Rooney, Richmond, Va., will superintend construction.

Tex., Beaumont.—People's Theater Co., W. D. Gordon, president, will increase capital stock and enlarge theater.

WAREHOUSES

Fla., Jacksonville.—William A. Bours awarded contract to W. T. Hadlow Company, Jacksonville, Fla., for erection of warehouse recently noted; 105x103 feet; three stories; brick with fire-wall in center; electric lighting; two electric freight elevators; cost \$20,000; plans by McClure & Holmes, Jacksonville, Fla.

Mo., St. Louis.—St. Louis Brewing Co. will erect one-story storage-house to cost \$13,000.

Mo., St. Louis.—Ludlow-Saylor Wire Co. leased site with frontage of 100 feet on which to erect warehouse.

S. C., Lockhart.—Lockhart Mills awarded contracts for erection of four warehouses; brick construction; capacity 3000 to 4000 bales each.

Tenn., Nashville.—H. H. Hughes of Hughes Warehouse & Elevator Co. awarded contract to Schuyler & Schuyler of Nashville to erect warehouse and elevator; cost \$59,000.

Tex., Dallas.—E. J. Fry and Chas. Cobb, Jr., Marshall, Tex., awarded contract to M. S. Hasie Construction Co., Dallas, Tex., for erection of warehouse (recently noted) for Texas Glass & Paint Co.; 92x120 feet; three stories and basement; mill construction; electric lighting; freight elevator; cost \$45,000, excluding elevator, sprinkling system and heating plant; plans by Lang & Witchell, Dallas, Tex. (See "Machinery Wanted.")

Tex., San Antonio.—Charles Peterson contemplates erection of warehouse on site adjoining San Antonio River.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—A dispatch says it has been announced that the Illinois Central Railroad will within a year build its own line from Haleyville to Birmingham, about 70 miles. A. S. Baldwin is chief engineer at Chicago, Ill.

Ala., Cullman.—President G. H. Ten Broek of the Cullman Coal & Coke Co. says that grading on the company's railroad from Cullman southwest to its coal properties, 25 miles, will be completed by January 1; also that tracklaying will soon begin and the entire line will be ready for operation by April 1 at a cost of about \$300,000.

Ark., Little Rock.—According to a report quoting F. H. Britton, vice-president and general manager, the St. Louis Southwestern Railway will begin construction within 10 days or two weeks on its new passenger and freight terminals at Argenta, adjoining Little Rock. M. L. Lynch is chief engineer at Tyler, Tex.

Ark., Monte Ne.—W. H. Harvey is reported to have sold the Monte Ne Railroad, a short line, to Senator F. F. Freeman of Rogers, Ark., who will, it is said, build an extension. Mr. Freeman is president of the Rogers White Lime Co.

Ark., Ola.—J. O. Jones of Ola is reported surveying for a new line contemplated by the

Kansas City Southern Railroad. It will be 25 miles long. A. F. Rust is resident engineer of the company at Kansas City, Mo.

Ark., Reader.—An officer of the Prescott, Reader & Fordyce Railway Co. is reported as saying that an extension is projected from Lydia to Prescott, 18 miles, and it is also contemplated to extend from Prescott to Fordyce, Ark., 75 miles. W. B. Ferguson is president and general manager at Little Rock, Ark.

Fla., Live Oak.—The Suwannee River & White Springs Railroad Co. will build next year eight miles of line from Pine Grove to White Springs, Fla. W. L. Tedder is president.

Fla., Odessa.—The Tampa & Gulf Coast Railroad is reported to have completed grading from Odessa to Tarpon Springs, 19 miles.

Ga., Aberdeen.—An officer of the Western of Georgia Railway writes that a stockholders meeting is called for December 20 to authorize \$500,000 of bonds. The proposed line is from Aberdeen to Newnan, Ga., 13 miles, and from Newnan to Franklin, Ga., 22 miles. As previously reported, contract is let to Ira L. McCord, 42 Broadway, New York. W. C. Wright of Newnan, Ga., is secretary.

Ga., Augusta.—J. M. Turner, general manager of the Georgia & Florida Railway, is reported as saying that construction will soon begin between Blythe, St. Clair and Keyesville. A new trestle will be built over Briar Creek. W. A. Swallow is chief engineer at Augusta, Ga.

Ky., Lexington.—The Lexington Railway Co. is reported to have completed 12 miles of interurban railway between Lexington and Nicholasville, Ky.

Ky., Versailles.—A report says that right of way is being secured for an extension of the Kentucky Highlands Railway from Millville to Versailles, about nine miles. R. N. Huddon of Versailles, Ky., may give information.

La., Donaldsonville.—The Miles Plantation & Manufacturing Co. is reported building a narrow-gauge railroad to Edenboro.

La., New Orleans.—The Illinois Central Railroad, it is reported, contemplates building a lumber wharf and is seeking a site from the city. A. S. Baldwin, Chicago, Ill., is chief engineer.

La., Palmetto.—An official writes that the proposed line of the Avoyelles, Palmetto & Gulf Railway Co. is from Opelousas via Plaquemine and Palmetto to Moreauville, La., 41 miles. Raff & Oiler of Opelousas, La., are the engineers. The officers are E. A. Plache of Marksville, La., president; Dr. R. G. Hawkins of Palmetto, La., vice-president; H. E. Estorge, treasurer; John H. Harmanson, secretary, and Dudley L. Gullebeau, attorney, all of Opelousas, La. Others interested are Wesley Budden, W. G. Ellerbe and Thomas Dunbar of Palmetto, La.; E. P. Veazie, C. P. Dunbar, J. G. Lawer and Dr. A. J. Bercler, all of Opelousas, La.; Robert Harry of Washington, La.; A. B. Borden, M. O. Chenvert, Dr. B. J. Lacour and Dr. J. J. Haydel, all of Plaquemine, La.; A. O. Boyer, Dr. S. D. Porter and J. C. Conville of Moreauville, La.; L. G. Duckworth of Palmetto, La. Date not decided to receive bids for construction.

La., Winnboro.—The Winnboro & Boeuf River Railroad Co. is reported chartered by the St. John Lumber Co. of Winnboro, and five or six miles are graded. It will connect with the Rock Island at Jena, La.

Miss., McComb.—The Liberty White Railroad Co. is reported contemplating an extension from Holmesville to Tylertown. W. M. White is vice-president and general manager at McComb, Miss.

Miss., Meridian.—The Sunter Lumber Co.'s Railroad, it is reported, will be built from Enondale, 10 miles west into Kemper county to a turpentine camp.

Miss., Meridian.—President J. W. Hudson of the Mississippi-Western Railroad Co. is reported as saying that arrangements have been made to finance the line through a foreign syndicate, and a representative of the financiers will soon inspect the proposed route. W. A. Wall of Meridian, who is interested in the plan and is also an incorporator of the Gainesville Southwestern Railway, is quoted as saying about the latter that Ford Lee of Cumberland, Md., will immediately survey the old line from Narkeeta to Gainesville.

Miss., Poplarville.—Martin Van Heuvel, agent for the Sage Land & Improvement Co., Mobile, Ala., says it is not interested in building a railroad from Poplarville to Columbia, Miss., but that the Louiskill Lumber Co. expects to build a logging road from a connection with the New Orleans & North-eastern to develop timber land recently

bought. It will be about 20 miles long to Pearl River. William H. Louissell of Mobile, Ala.; Seyrill Louissell and William Van Heuvel of Pickayune, Miss., and T. M. Stevens of Mobile are interested.

Mo., Houston.—The St. Louis & Houston Mineral Belt Railroad Co., according to a report quoting an officer, is surveying from Houston to Sargent, Mo., 23 miles. E. K. Lyles of Houston, Mo., is secretary.

Mo., Kansas City.—Concerning the report that the Atchison, Topeka & Santa Fe Railway would double-track its line all the way from Chicago to the Pacific coast, an officer writes that double-tracking will be entirely completed by next summer from Chicago, Ill., to Mission, Kans. West of that point double-tracking will proceed as required by traffic and other conditions.

N. C., Causey.—The Bon Lee & Western Railroad proposes to build next spring an extension westward from Wells, N. C. I. H. Dunlap and others are interested.

N. C., Swannanoa.—The Bee Tree Railroad, it is reported, has made surveys and will immediately build an extension three-quarters of a mile long. S. F. Chapman is general manager.

Okla., Durant.—The Oklahoma & North Texas Railroad Co., it is reported, will be incorporated soon for a line from Durant to Paris, Tex., 65 miles. D. A. and L. S. Powers and others of Durant are said to be interested, and Samuel Graham & Co. of Montreal, Canada, are named as fiscal agents.

Okla., Lawton.—The Oklahoma Realty & Development Co. has let grading contracts to C. S. Thomas of Lawton for two miles of line from Lawton to an industrial addition. J. D. Kennard is engineer in charge. The officers of the company are P. D. Anderson, president; G. C. Robertson, treasurer; M. A. West, secretary, and R. E. Trasper, vice-president.

Okla., Oklahoma City.—W. F. Harn is reported as saying that the Citizens' Traction Co., recently incorporated, has about seven miles of railroad completed and in operation, with four miles more under construction. This is for a city and suburban system and also terminus for an interurban line between Oklahoma City and Shawnee. Mr. Harn's address is P. O. Box 573, Oklahoma City, Okla. L. E. Paterson is president of the company; J. F. Winans, secretary and treasurer; Alfred Hare, general manager and purchasing agent.

Okla., Sallisaw.—O. E. Snyder, treasurer of the St. Louis & Oklahoma Railroad Co., is quoted as saying that contracts have been let for grading from Dougherty to Bromide, Okla., 27 miles, and the company will acquire a grade built 12 years ago by W. K. Scott of Denison, Tex., for the old proposed Denison & Northwest Railroad.

Okla., Sallisaw.—An officer of the Sallisaw, McAlester & Southern Railroad is reported as saying that the J. C. Wilkinson Company of McAlester is working on a 10-mile section from Savannah northward to McAlester and that surveys are being made southwest from Sallisaw to Lawton, Okla., about 200 miles.

S. C., Greenville.—Legal notice is given that application will be made by Charles W. Ellis, H. H. Prince and O. K. Mauldin to charter the Greenville & Spartanburg Railway Co. to build a standard-gauge electric line 31 miles long connecting the two points named in the title.

Tenn., Bristol.—Concerning a contemplated electric railway from Bristol to Johnson City, Tenn., J. B. Cox of Johnson City writes that the company is not yet organized, but that the proposed route is from Johnson City via Austin Springs, Piney Flats, Bluff City, Thomas Bridge and along Beaver Creek Valley to Bristol, about 21 miles. He is endeavoring to interest capital.

Tenn., Franklin.—The Middle Tennessee Railroad is reported to have operated its first train from Leatherwood to Elam's Farm, six miles. The line is to be continued to Franklin.

Tenn., Crandall.—Concerning the Crandall & Shady Valley Railroad recently incorporated, a letter says that it is controlled by the same interests and with the same officers as the Beaver Dam Railroad, with which it connects at Crandall, and it has now about six miles in operation.

Tenn., Knoxville.—Tracklaying on the Knoxville, Sevierville & Eastern Railway, 25 miles long, is to be completed within 10 days, the steel now having been laid to Boyd's Creek.

Tenn., Newport.—Referring to the report that the Tennessee & North Carolina Railroad would build an extension from Waterville to Canton, N. C., an officer says that nothing definite has been decided.

Tex., Bartlett.—Tracklaying is reported begun by A. W. Hubbard on the Bartlett-

Florence Railroad, and six miles will be laid immediately to Schwertner.

Tex., Brownwood.—The Brownwood North & South Line has been organized and a charter to build 30 miles of railroad will be secured. The directors are J. A. Walker, T. C. Yantis, Henry Ford Brookesmith, J. J. Timmons, G. N. Harrison, A. L. Self, R. B. Rogers and Will H. Mayes. The line will run to either Rising Star or Cisco.

Tex., Colorado.—The Colorado & Concho Railway Co. has filed its charter, capital \$500,000, to build a railroad 60 miles long from Colorado to Robert Lee and thence to Tennyson, connecting at the beginning with the Texas & Pacific Railway and at the end with the Kansas City, Mexico & Orient Railway. The incorporators are C. W. McCutcheon, W. J. Adams, P. D. Coulson, A. J. Russell, W. F. Dupre, J. C. Cunningham, S. B. Kemp, J. S. Burroughs, C. W. Escue, J. H. Warren, M. Strand, T. L. Odom and W. H. Bell.

Tex., Dayton.—Contracts are reported let to S. L. Powell and P. Razor of Dayton to build an extension three miles long for the Trinity Valley & Northern Railroad from a point three miles north of Fouts. An extension of 11 miles to Rayburn is proposed. L. Fouts is president at Dayton, Tex.

Tex., Galveston.—The Galveston & Western Railroad Co. (Southern Pacific), it is reported, will immediately spend \$50,000 for improvements, including new ties and rails. A. V. Kellogg is engineer in maintenance of way at Houston, Tex.

Tex., Miles Station.—A dispatch says that the Concho, San Saba & Llano Valley Railroad, according to an amendment made to its charter, has been absorbed by the Santa Fe System, which will build the line from Paint Rock to Lubbock, Tex., 218 miles, with a branch from San Angelo, 26 miles. C. F. W. Felt is chief engineer at Galveston, Tex.

Tex., San Antonio.—J. F. Edwards is reported to have finished nearly five miles of grade for his proposed railroad from San Antonio to the Medina River.

Tex., San Antonio.—J. P. Nelson, who has agreed with the Chamber of Commerce to build a railroad from San Antonio to Fredericksburg, Tex., is quoted as saying that he has completed financial arrangements and will begin work promptly on December 28 as agreed upon. Surveys are already made.

Va., Pearisburg.—Survey is reported under way for an electric railway from Pearisburg to the Norfolk & Western Railway Station, two miles. The Mayor may be able to give information.

W. Va., Bluefield.—An officer of the Norfolk & Western Railway says that the report is erroneous that the company has obtained rights of way and made survey for an extension from Cane Brake to Cedar Bluff, W. Va.

W. Va., Elkins.—The Elkins Electric Railway Co. has completed and begun operating its line as far as the city limits. Construction is being continued to Belington, and will finally be extended to Clarksburg.

W. Va., Harrisville.—An officer of the Harrisville & Cornwalls Railway is quoted as saying that construction is under way from Harrisville to Cornwalls, W. Va., 64 miles. Line is to be extended in the opposite direction from Harrisville southeast to Burnsville, 45 miles. A. Wolverton of Philippi, W. Va., is chief engineer.

W. Va., Logan.—It is reported that the extension of the Chesapeake & Ohio Railway said to be contemplated in the Guyan Valley will be from Ethel to Huffs Creek, 20 miles, and rights of way are being acquired. H. Pierce is engineer of construction at Richmond, Va.

W. Va., Morgantown.—The Morgantown & Southern Railway is reported as saying that four miles of track will be built next year.

W. Va., Princeton.—A dispatch from Norfolk, Va., says that official denial is made of the press report that the Virginian Railway has purchased the railroad of the Bluestone Land & Lumber Co.

W. Va., Piedmont.—The Potomac Valley Railway, represented by J. P. J. O'Brien, attorney, Wheeling, W. Va., is reported granted extension of franchise to build line to Bloomington, Md.

STREET RAILWAYS

Ala., Gadsden.—The Gadsden Railway Co. has been incorporated to engage in street-car, general railroad and light and power business, and is said to be a subsidiary corporation of the Alabama City, Gadsden & Attalla Railroad Co. The incorporators are J. B. Carrington of Anniston, Ala.; W. N. Malone and A. B. Mitchell of Birmingham, Ala.

Fla., Pensacola.—An ordinance has been offered in the City Council to grant a street-railway franchise for the Pensacola Development & Construction Co.

Miss., Meridian.—M. R. Grant has applied to the City Council for a street-railway franchise, including a power plant. Others interested are E. Cahn, Gus C. Kendall, John H. Horne, James T. Crowe, A. H. Cooper, S. B. McRaven and John T. Chalk.

Tex., Marshall.—The Marshall Traction Co. is reported preparing to build an extension in the northern part of town. Marvin Turney is manager.

Va., Richmond.—The Virginia Railway & Power Co., according to a report quoting President William Northrop, will spend about \$600,000 for improvements, including several shops, a terminal passenger station in Manchester, a car barn, another station in Richmond, besides machinery and equipment.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery and supplies wanted.

Agricultural Implements.—Gonzales, Rodriguez & Co., Apartado Postal No. 91, Hermosillo, Sonora, Mexico, wants catalogues, prices and discounts on agricultural implements.

Aluminum Products.—W. S. Wootton, 308 Seventh Ave. S. W., Roanoke, Va., wants addresses of manufacturers of aluminum products.

Automobile Supplies, etc.—Enterprise Machine & Garage Co., College St., Franklin, Ky., wants prices on automobile supplies and accessories.

Bakery Machinery.—De Soto Industrial Co., Mansfield, La., wants machinery for steam bakery.

Band Saw.—A. H. Webb, Tylertown, Miss., wants prices on band saw.

Belt—Pickens Lumber Co., Pickens, S. C., wants prices on leather and canvas belt.

Blacksmith Machinery.—A. H. Webb, Tylertown, Miss., wants prices on power drill and emery wheel stand, cold-tire shrinker, power grindstone.

Blower.—Pickens Lumber Co., Pickens, S. C., wants prices on blower to collect shavings.

Boiler.—H. Annis, Fils, Noirmontier, Vendee, France, wants tubular and semi-tubular boiler, with heating surface five to six square meters; new or second-hand; invites full description, prices and discounts.

Boiler.—See "Stave Mill."

Boiler.—City of Thomas, Okla., will receive bids until December 13 on 125-horse-power boiler; specifications furnished on application to City Clerk.

Boilers.—Enterprise Machine & Garage Co., College St., Franklin, Ky., wants quotations on boilers.

Boilers.—See "Sawmill."

Brick Machinery.—B. F. Wiggins, Monroeville, Ala., wants prices on brick machinery.

Bridge.—W. J. Edwards, president Gulf Line Railway Co., Sylvester, Ga., wants prices on highway bridge 500 feet long; all steel or steel and wood; recently mentioned.

Bridge Construction.—Dallas County Commissioners' Court, Dallas, Tex., will open bids January 5 for furnishing and construction of steel highway bridge and viaduct over Trinity River, about five miles south of Dallas; bridge to have span over river of 200 feet, with approaches consisting of 250 feet of plate girder spans of 60 feet each and approximately one mile of gravel road; certified check, \$5000; plans and specifications can be had at the office of engineer of Dallas county, J. F. Witt, for \$2; all proposals to be filed with the County Auditor, Geo. L. Fearn; John L. Young, County Judge.

Bucket.—L. F. Hobbs, Box 483, Norfolk, Va.,

wants orange-peel bucket; three-quarter yard; second-hand.

Burners.—R. H. Evans, Box 18, Station A, Chattanooga, Tenn., wants to correspond with manufacturers of burners for oil and gasoline.

Building Materials.—Batson & Burton, Moundsville, W. Va., want prices on pressed brick, steel, lime, cement, lumber (bill stuff), flooring, sash, doors, frames, interior finish and stairs for \$46,000 school building at Woodlawn, P. O. Wheeling, W. Va.

Building Material.—Peavy-Byrnes Lumber Co., Shreveport, La., wants prices on building material for sawmill, etc.

Cars.—Alta Lumber Co., F. O. Havener, president, Pulaski, Va., wants 36-inch-gauge logging cars.

Cars.—See "Railway Materials and Supplies."

Carts.—See "Concrete-mixing Machinery."

Catalogues.—Sydnor Pump & Well Co., 1310 East Main St., Richmond, Va., wants to correspond with catalogue printers and illustrators.

Celluloid Labels.—P. S. Martin & Co., Broadway, Va., want addresses of manufacturers of small celluloid labels; want label $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4}$ inches, with 3-16-inch hole in one end.

Cement.—See "Building Materials."

Coffin Hardware.—Box 97, Clio, S. C., wants price-list of coffin hardware.

Collapsible Tubes.—L. T. McShane, care of Phoenix Mutual Life Insurance Co., Greenwood, Miss., wants to correspond with manufacturers of collapsible tin tubes for tooth paste, etc.

Concrete-mixing Machinery.—H. B. Chapman, Woodstock, Va., wants second-hand concrete mixer, one or two-wheel scoops, and carts for handling concrete.

Cotton Machinery.—See "Mattress Machinery."

Cotton Mill.—Lone Star Cotton Mill, J. Perry Burrus, president, McKinley, Tex., will want bids about January 1 on about 5000-spindle equipment, including producer-gas plant, dynamos, motors, etc.

Dredging Machinery.—See "Bucket."

Electric Conduits and Wiring.—See "Government and State Buildings" under Tenn., Bristol.

Electrical Machinery.—Lone Star Cotton Mill, J. Perry Burrus, president, McKinley, Tex., will want bids about January 1 on dynamos, motors, etc.

Electrical Equipment.—John A. Carter Co., 417 Heed Bldg., Philadelphia, Pa., wants prices on electrical equipment for \$35,000 municipal building, Raleigh, N. C.

Electrical Machinery.—City of Thomas, Okla., will receive bids until December 13 for furnishing 150-kilowatt engine-type three-phase 200 or 225 R. P. M. generator; specifications supplied on application to City Clerk.

Electrical Machinery.—Savannah Hydro-Electric Construction Co., D. G. Zeigler & Co., engineers in charge, 50 Mutual Life Bldg., Jacksonville, Fla., is ready for bids on hydro-electrical machinery.

Elevator.—Lang & Wittichell, Dallas, Tex., want prices on elevators.

Elevator.—Henry House, 612 Travis St., Houston, Tex., wants bids on electric elevator.

Engines.—See "Sawmill."

Engine.—See "Stave Mill."

Engine.—See "Gasoline Engine."

Engine.—City of Thomas, Okla., will receive bids until December 13 on 250-horse-power engine to be operated at 200 or 225 R. P. M.; specifications furnished on application to City Clerk.

Engines.—Enterprise Machine & Garage Co., College St., Franklin, Ky., wants quotations on engines.

Engine.—Sumter Telephone Manufacturing Co., Sumter, S. C., wants second-hand engine; 150 to 200 horse power; slow speed. (Buckeye preferred.)

Engravers.—See "Catalogues."

Excelsior Machinery.—See "Mattress Machinery."

Filtering Press.—H. Annis, Fils, Noirmontier, Vendee, France, wants filtering press with pump; filtering surface, five to six square meters; wants full description, prices and discounts.

Forgings.—See "Castings, etc."

Galvanized Cornice.—York & Cobb, Greenville, N. C., want prices on galvanized cornice work.

Gasoline Engine.—Cohutta Talc Co., Dalton, Ga., wants second-hand gasoline engine, about 12 or 15 horse-power.

Glass Jars.—E. Chambers, St. Petersburg, Fla., wants catalogues and prices on glasses for jams, jellies and fruits.

Grinder.—H. Annis, Fils, Nolrmoutier, Vendee, France, wants color grinder; capacity, 100 to 150 pounds; new or second-hand; invites full description, prices and discounts.

Grist Mills.—American Metallic Packing Co., Lexington, Ky., wants two second-hand 18 to 20-inch French buhr stones, under-runner pulley grist mills (Nordyke or Bradford type preferred).

Heating Apparatus.—See "Government and State Buildings" under Tenn., Bristol.

Heating Plant.—Lang & Wittchell, Dallas, Tex., want prices on heating plant.

Heating Plant.—Brady National Bank, Brady, Tex., wants prices on heating plant for \$25,000 bank building.

Heating Plant.—John A. Carter Company, 417 Heed Bldg., Philadelphia, Pa., wants prices on steam-heating plant for \$95,000 building, Raleigh, N. C.

Heating Plant.—M. Finkelstein, 215 Gay St., Knoxville, Tenn., wants prices on furnaces for small dwellings.

Hoisting Engine.—H. B. Chapman, Woodstock, Va., wants second-hand double-drum double cylinder (about) 10 to 12-horse-power hoisting engine.

Hoisting Engine.—Batson & Burton, Mounts-ville, W. Va., want prices on hoisting engine and derrick.

Ice Machinery.—J. A. Schafer, care of Gary State Bank, Garyville, La., wants names of manufacturers of ice-manufacturing machinery.

Ice-harvesting Tools.—Workman & Son, Danville, Ohio, want equipment of natural-ice harvesting tools.

Labels.—E. Chambers, St. Petersburg, Fla., wants catalogues and prices on labels for jelly and fruit jars etc.

Locomotive.—Alta Lumber Co., F. O. Haven-ner, president, Pulaski, Va., wants 24-inch-gauge geared locomotive, 20 to 25 tons.

Locomotive.—Wise Granite Co., Wise, N. C., wants second-hand standard-gauge 30-ton locomotive; coal burner; complete with tank, tender and pony trucks.

Log Loader.—Alta Lumber Co., F. O. Haven-ner, president, Pulaski, Va., wants steam log loader.

Mattress Machinery.—J. K. Ivey, Macon, Ga., wants prices on mattress machinery, including Perfection stuffer (blower system), willows, excelsior pickers and batting machinery.

Metal Cans.—W. P. Monroe, Wilmington, N. C., wants to correspond with manufacturers of screw-top metal cans for polish.

Metal Ceiling.—Brady National Bank, Brady, Tex., wants prices on metal ceiling for \$25,000 bank building.

Milling Machine.—Oklahoma Gas Engine Co., Arthur Fishbeck, president and manager, Oklahoma City, Okla., wants milling machine No. 3.

Miscellaneous Manufactures.—Martin Lopez, P. O. Box 148, San German, Porto Rico, wants to correspond with American manufacturers and jobbers of alcohol stores, furniture, pianos, toys, beds, watches, jewelry, condensed milk, safety razors, lamps, lanterns, bedsprings, confectionery, glassware, soap and hardware.

Miscellaneous Supplies.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until December 23 for furnishing lumber, cast steel shipper friction wheels, hack-saw blades, electrical attachments and wire, etc. Blanks and general information relating to Circular No. 516 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Paper-bag Machinery.—Janos Krahli, Szeged, Hungary, wants prices, description, blueprints and other data on machines for manufacturing paper bags for flour, cement, etc.

Paper Bags.—A. V. Mandry & Co., 157 Congress St., Brooklyn, N. Y., wants to correspond with manufacturers and jobbers of paper bags; sizes of bags, 1/2 ounce to 25 pounds; also millinery bags in all sizes.

Paper-bag Machinery.—Janos Krahli, Szeged, Hungary, wants prices, blueprints and other data on machinery for manufacturing paper bags for flour, cement, etc.

Paving.—T. C. Russell, Mayor, Alexander City, Ala., wants information (literature) and prices on various kinds of street pavement.

Paving.—City Council, C. M. Hurst, Clerk and Treasurer, Sumter, S. C., will receive bids until December 21 for paving 6000 square yards of sidewalk on Main St. with cement; plans and specifications can be obtained from W. Loving Lee, City Engineer.

Peanut Oil.—Frio Cotton Oil Co., Pearsall, Tex., wants data relative to manufacture and sale of peanut oil; purposes, prices, names of dealers, etc.

Planing Mill.—Ozone Land Co., Monticello, Miss., will open proposals soon for planing-mill machinery.

Plumbing.—John A. Carter Company, 417 Heed Bldg., Philadelphia, Pa., wants prices on plumbing for \$95,000 building, Raleigh, N. C.

Plumbing and Gasplumbing.—See "Government and State Buildings" under Tenn., Bristol.

Printers.—See "Catalogues."

Producer-gas Plant.—Lone Star Cotton Mill, J. Perry Burrus, president, McKinney, Tex., will want bids about January 1 on producer-gas power plant.

Pumps.—See "Sawmill."

Pumping Machinery.—St. Charles College, Grand Coteau, La., wants gas, gasoline or kerosene engine, with pump, to force about 10,000 to 15,000 gallons of water per day of eight hours to tower 107 feet high from well eight inches in diameter, with water within 40 feet of top.

Rails.—Oklahoma Realty & Development Co., R. D. Anderson, president, Lawton, Okla., wants bids on rails.

Railway Materials and Equipment.—Box 599, Jourdan, Tex., wants prices on 8 or 10 miles 40-pound No. 1 relay steel, with straps and bolts; lock washers; spikes; switches and frogs; ties; track tools; also standard-gauge light flat and box cars; delivered Texas, common points.

Reinforcing Materials.—A. O. Bregance, Navasota, Tex., wants wire fabric (preferably of aluminum or non-rusting wire) as reinforcement for asbestos fireproof wall covering, etc.

Revetment Construction.—Linwood & Auburn Levee Board, Gus Waterman, chairman, Dumas, Ark., will receive bids until December 20 for construction of bank protection work in vicinity of Cummins, Ark., to consist of 2000 linear feet continuous revetment and also three bank dykes in bend above revetment 500 feet apart; revetment to be fully up to standard type as used by U. S. Government on this river, or of type under patent of David Neale; bank to be graded to slope not less than two and a half to one, and be covered either with riprap or enforced concrete; dyke to be constructed after manner as patented by David Neale; also bids will be received from contractors furnishing their own plans. Plans and specifications may be seen at office.

Road Macadamizing.—Lenoir & Blowing Rock Turnpike Co., Lenoir, N. C., will open bids January 5 for grading and macadamizing three miles of road near Lenoir and macadamizing three additional miles to be graded by company; specifications and blank forms sent upon application; plans and profiles can be seen at office of company; certified check, \$500, payable to G. L. Bernhardt, president; Rufus L. Gwyn, secretary-treasurer, Lenoir; C. M. Miller, engineer, Salisbury, N. C.

Road Rollers.—Duval County Commissioners, Jacksonville, Fla., will receive bids until December 24 for two seven-ton standard gasoline rollers, delivered on work in Duval county within three weeks after letting of contract. Address proposals to F. J. Hyde, chairman Commissioners; Gail L. Barnard, County Engineer.

Roofing.—Brady National Bank, Brady, Tex., wants prices on roofing.

Roofing.—York & Cobb, Greenville, N. C., want prices on roofing slate.

Roofing Machinery.—Henderson Land & Development Co., Guntersville, Ala., wants machine for making roofing. (Prefers machine similar to that used for Phillips-Carey roofing.)

Sawmill.—G. T. Caldwell, Double Wells, Ark., may purchase small sawmill.

Sawmill.—Peavy-Byrnes Lumber Co., Shreveport, La., wants prices on complete equipment for double-band sawmill, including boilers, engines, electrical equipment, wood-

working machinery, pumps and mill supplies.

Shafting and Pulleys.—A. H. Webb, Tyler-town, Miss., wants prices on shafting and pulleys.

Shafting, etc.—H. Annis, Fils, Nolrmoutier, Vendee, France, wants power shafting, 40 to 45 millimeters; oil boxes with check rings; hangers or seats for belting, pulleys; new or second-hand; invites full description, prices and discounts.

Soda Fountains.—C. C. MacKee Company, Hongkong, China, wants catalogues, illustrations, lowest prices, cash discounts, etc., on soda fountains, boxed for export; from cheapest pedlar stands up to high-grade equipments.

Sprinkling System.—Lang & Wittchell, Dallas, Tex., want prices on sprinkling system.

Stave Mill.—V. Stonerod, Yeagertown, Pa., wants second-hand nail-peg stave mill; not less than 40-horse-power portable boiler and engine.

Steel Castings, etc.—Success Machinery Co., 213 Canal-Louisiana Bank Bldg., New Orleans, wants addresses of manufacturers of steel castings, drop steel forgings and pressed steel sheet work.

Steel.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until December 14 for furnishing carbon tool steel during year ending December 31, 1910. Blanks and general information relating to Circular No. 544 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Steel.—See "Building Materials."

Store Fixtures.—Geo. N. Parker, Grand Cane, La., wants prices on finished shoe shelving and rolling shoe ladders.

Structural Iron.—York & Cobb, Greenville, N. C., want prices on structural iron.

Ties.—Oklahoma Realty & Development Co.,

R. D. Anderson, president, Lawton, Okla., wants bids on ties.

Ties.—Lake View Traction Co., W. W. Hayden, chief engineer, Memphis, Tenn., wants sealed bids for 31,000 standard first-class bill white oak, cypress or long leaf pine f. o. b. Memphis; bids to be opened December 15.

Tobacco-pipe Machinery.—Southern Pipe Block Co., Blowing Rock, N. C., wants information and prices on machinery for making, boring and finishing tobacco-pipe bowls of briarwood.

Tubs.—Reading Wood Pulley Co., 11th and Muhlenburg Sts., Reading, Pa., wants addresses of manufacturers of tubs for washing machines.

Tunnel Construction.—Bids will be received at office of Department of the Interior, office of Porto Rico Irrigation Service, Guayama, Porto Rico, until January 17 for construction of Carite tunnel near Guayama and Toro Negro tunnel near Villalba; aggregate length of tunnels, 6000 linear feet; estimated cost, \$100,000; plans and specifications may be obtained from above office or from Commissioner of the Interior, San Juan, Porto Rico, or from U. S. Reclamation Service, Washington, D. C.; deposit of \$1 required for plans, to be refunded on return of plans before January 10; L. H. Grahame, Commissioner of the Interior of Porto Rico; B. M. Hall, chief engineer, Porto Rico Irrigation Service.

Water-power Machinery.—See "Electrical Machinery."

Water-works.—Atlanta, Tex., will receive proposals December 20 for machinery and construction of water-works. For full specifications address Fountain-Shaw Engineering Co., Houston, Tex., or Hugh Carney, City Secretary, Atlanta, Tex.

Well-drilling Machinery.—W. J. Brown, P. O. Box 31, Jackson, Miss., wants prices on well-boring outfit.

Woodworking Machinery.—Box 97, Clio, S. C., wants prices on second-hand band saws, wood shapers, etc., for manufacturing cheap coffins.

Woodworking Machinery.—Multi-Board Portable House Co., 4728a Olive St., St. Louis, Mo., will be in market within next six months for woodworking machinery; prefer direct-coupled electric.

Woodworking Machinery.—Julius V. Oppert, Comfort, Tex., wants prices on rip and cut-off saws, and jointer.

INDUSTRIAL NEWS OF INTEREST

Foundry for Sale.

C. M. Crumbaugh, Terrell, Tex., offers for sale a foundry located adjoining railroad shops in a town of 8000 population. The owners are professional men and want to sell to some competent foundry man.

The Goulds Pumps Awarded Medals.

An announcement of industrial interest relates to the award of medals by the Alaska-Yukon Exposition to the pump exhibit of the Goulds Manufacturing Co., manufacturer of pumps and hydraulic machinery, Seneca Falls, N. Y. The company states that this was the highest award made at this exposition for triplex power pumps.

Invites Furniture Factory.

As an inducement for the location of a furniture factory of any kind, a free site and liberal stock subscription is offered in a locality where there is a large supply of raw material and good transportation facilities. Information and details may be obtained from Charles R. Rose, secretary of the Lufkin Progressive League, Lufkin, Tex.

Erecting New Warehouses.

Jones & Co. of Norfolk, Va., announce that they have moved their offices and warehouses to the Wrenn wharf property, which they recently purchased. They are erecting large and modern reinforced concrete warehouses with the idea of securing the lowest possible rate of insurance. The new buildings are located in the business section of the city and are easily accessible to local dealers, besides possessing excellent facilities for shipping by rail and water.

P. O. Kellholtz Has Important Contract

An important contract secured by P. O. Kellholtz, consulting engineer, 615 Continental Bldg., Baltimore, is for the Winchester & Washington City Railway's proposed electric plant on the Shenandoah River at Willville, Va. This plant will cost \$100,000 and have a capacity of 1700 horse-power. Mr. Kellholtz will prepare plans and specifications and superintend the work. He is a well-known engineer, and was formerly with

the Consolidated Gas Co. and the United Railways & Electric Co. of Baltimore. While with the United he had charge of building the big electric plant on Pratt street, various substations, etc., the investments running up into millions.

Numerous Opportunities Offered.

In an item published last week calling attention to an announcement of the Caldwell & Northern Railroad Co., Chester, S. C., offering opportunities for the establishment of various enterprises, the address of the company was inadvertently omitted. The Caldwell & Northern Railroad Co. invites correspondence with those who desire to establish or acquire industrial enterprises, including water-powers, cotton mills, fruit and vegetable farms, poultry farms, woodworking plants, etc.

Boston Branch Pocahontas Fuel Co.

The Pocahontas Fuel Co. has appointed James T. McDonald manager of its Boston (Mass.) branch, with offices in the Board of Trade Building, Broad and State Sts. Mr. McDonald will take immediate charge, the office being opened on December 6. The Pocahontas Fuel Co., as recently reported in the Manufacturers' Record, has been organized to market the output of the Pocahontas Consolidated Collieries Co., which controls a number of coal mines in the famous Pocahontas district.

Electric-Light Plant Offered.

An opportunity for acquiring the franchise and properties of an electric-light plant in a Southern town will be presented in the sale of the Clinton electric-light plant, to be made to the highest bidder on December 22, 1909. These properties are located at Clinton, N. C., and include machinery, poles, wire, franchises, good-will, etc. The plant is in operation, and particulars regarding it may be obtained by application to the Bank of Sampson, Clinton, N. C.

An Increasing Number of Orders.

Experiencing the effect of a general revival of trade, the J. R. Alsing Engineering Co.,

136 Liberty street, New York, engineer, patentee and manufacturer of modern crushing, grinding and pulverizing machinery, has had a satisfactory increase in the number of orders received during the past two months, especially for export trade. This company received orders from Nicaragua and Mexico for its multiple tube mill for the enameling trades, in addition to orders for tube mills to be used in chemical works and for pulverizing raw bone.

Norfolk Manager of Pocahontas Co.

The Pocahontas Fuel Co., 39 Pine St., New York, announces the appointment of E. O. Parkinson as its Norfolk manager. Mr. Parkinson is at present agent of the Norfolk & Western Railway at Norfolk, and will undertake his new duties by January 1. The Pocahontas Fuel Co. was recently reported in the Manufacturers' Record as having been organized for marketing the output of the Pocahontas Consolidated Collieries Co., which operates extensively in the Pocahontas coal field.

The Browning Manufacturing Co.'s Activities.

Among important contracts which the Browning Manufacturing Co. of Cleveland, Ohio, has recently undertaken is one for the erection of a double-boom 100-foot-radius excavator at Lockport, N. Y., for the United Engineering & Contracting Co. This equipment is being completed and is the second big machine for work on the New York barge canal. The Browning Manufacturing Co. is also constructing at its shops at Mansfield, Ohio, two 1½-yard machines with 60-foot and 75-foot booms for canal contractors.

Working to Its Full Capacity.

The American Electric, Machine & Elevator Co., 1106 Cass Ave., St. Louis, Mo., was incorporated with a capital stock of \$10,000, as mentioned in a recent issue of the Manufacturers' Record. John T. Burke was elected president and treasurer and Wm. A. Krauss secretary. The company manufactures and installs elevators, and at present is working to its full capacity in the completion of contracts recently secured. Its elevators are hand, belted and electric-power machines of various sizes. In addition to this the company represents the Sterling Electric Motor Co. of Dayton, Ohio, selling its motors, both for electric elevator work and ordinary power purposes.

Full Stock, and Business Increasing.

Among the supply houses having an extensive Southern trade whose sales have lately shown satisfactory increases is the Kirwan-Roberts Supply Co., 109 South Charles St., Baltimore, Md. This company reports that its Southern sales materially increased during the past year and that prospects for the future are very bright. It has a full stock of mine, contractor, railway and quarry supplies on hand, including electric hoisting engines from 6 horse-power to 120 horse-power, wire and manila rope and blocks, fittings, cordage, sheaves, stationary engines, derricks, shovels and picks, stone crushers, concrete mixers, contractors' wagons, cars and plows, boilers, chain road machines, new and relay rail, aerial cable and tramways, clamshell and orange-peel buckets, etc. E. E. Robb, president of the company, is the executive in charge of sales.

Representing T. L. Smith Company.

An announcement of industrial interest refers to the acceptance by Ross Hunter, 1125 Century Bldg., Atlanta, Ga., of the account as Southeastern sales agent of the T. L. Smith Company, general sales offices, Old Colony Bldg., Chicago. He will cover the following territory in the interest of this company: North Carolina, South Carolina, Georgia, Florida, Alabama and Tennessee. Mr. Hunter was for several years the Southeastern sales manager for the A. T. Hazen Company, Rochester, N. Y., and later with the American Laundry Machinery Manufacturing Co. as assistant to the secretary in its general office at Chicago, leaving this company to act as agent for the T. L. Smith Company and the Chicago Concrete Machinery Co. In connection with the products of the T. L. Smith Company and the Chicago Concrete Machinery Co. Mr. Hunter will handle a full line of contractors' machinery.

Another Addition to Plant.

While ground was being broken for the erection of an additional warehouse at the plant of the Dodge Manufacturing Co., manufacturer of Dodge power-transmission machinery, Mishawaka, Ind., plans had been submitted to contractors for an extension to the East foundry for the manufacture of all

sizes of standard pulleys. This building will be 360x50 feet and will cost about \$50,000. The walls will be of brick with steel trusses for the roof, the structure to be supplied with two cupolas having capacities of 8 and 10 tons per hour. An 8-ton electric traveling crane will operate between the cupola and the supply yard, while in the foundry a 5-ton electric traveling crane will handle castings and heavy material. There will be an elevated coke shed 240x15 feet, with a Dodge conveyor attachment for unloading cars, and changes will be made in the core room, sand sheds and yards to facilitate the moving of cars and supplies. It is also planned to erect new buildings for charcoal and limestone. These improvements, with the main machine shop extension, will double the present capacity of the plant, which is necessitated by the demand for stock goods.

Slow-Speed Blow-Pipe Systems.

C. H. Keeney of the blowpipe department of the New Orleans Roofing and Metal Works, Scott, Toulouse, St. Louis Sts. and Carrollton Ave., New Orleans, La., states that his company is making a specialty of the Cycloidal slow-speed low-power blowpipe systems, and has sold a great many throughout the Southern States. Among the purchasers for whom systems are being installed are the International Car Co., New Orleans, La., 80-inch fan, 600-foot blow; Excelsior Cypress Co., Timberton, La., 80-inch fan, 500-foot blow; Georgetown Manufacturing Co., Georgetown, Miss., 55-inch fan, 150-foot blow; Port Arthur Planing Co., Port Arthur, Tex., 70-inch fan, 80-foot blow; Galveston, Houston & Henderson Railway Co., Galveston, Tex., 45-inch fan, and J. C. Stout, Lake Charles, La., 50-inch fan. In addition the company has received orders from the Arkansas Casket Co., Fort Smith, Ark.; Burton-Schwartz Cypress Co., Burton, La.; Baker-Wakefield Cypress Co., Plattenville, La.; Goodland Cypress Co., Chachahoula, La.; Owosso Manufacturing Co., Benton, Ark.; Iatt Lumber Co., Colfax, La., and others.

TRADE LITERATURE.

Columbia Callipers.

A booklet describing and illustrating the "Columbia" callipers has recently been issued by E. G. Smith, Columbia, Pa., the manufacturer of these tools. "Columbia callipers are made in several styles and sizes, all of which are warranted accurate.

The Indicator for November.

The Indicator for November, a publication issued in the interests of the Otis Elevator Co., main office in New York city, is being circulated. The publication contains illustrations of several prominent structures equipped with Otis elevators, and presents other interesting and timely information.

The Burroughs for November.

The Burroughs for November, the salesmen's number, a publication for the men and women connected with the Burroughs Adding Machine Co., Detroit, Mich., is being circulated. This publication contains a number of pleasing illustrations and presents much timely information and other data relating to various subjects.

The Buckeye Reputation.

The idea that business men prefer to buy of the manufacturer with a record and reputation, assuming that it is a stronger protection than a contract or bond, is forcibly presented in a folder recently issued by the Buckeye Electric Co. of Cleveland, Ohio. This company has manufactured incandescent lamps for nearly 20 years, and has expended much money and ceaseless effort in the improvement and perfection of devices for electric-light requirements.

A Word About Garden Hose.

A garden hose whose material and construction are submitted to severe tests in order to determine the efficiency of the manufactured article is the product of the New Jersey Car Spring & Rubber Co., main office and factory, Jersey City, N. J. This company manufactures garden hose of several varieties and states that all its brands can be depended upon in every detail. A booklet which the company is distributing presents illustrations and descriptive data regarding the hose which it manufactures.

A Wood Frame Combination Saw.

A convenient machine which can be used for ripping and cross-cutting, mitering, galing and rabbetting is a wood-frame combination saw with double arbor. This machine is manufactured by the B. M. Root Company,

manufacturer of woodworking machinery, York, Pa., and is claimed to be able to do practically all the work required of the double-arbor machines. It is described and illustrated on a folder which the company is distributing.

Adjustable Speed Motors.

Among the advantages claimed for individual motor drive, as applied to the operation of machine tools by adjustable speed motors, are increased output, saving in power, flexibility in arrangement of machines, facility in serving machines, and cleaner, lighter and healthier operating conditions. Bulletin No. 371, issued by the Triumph Electric Co. of Cincinnati, O., illustrates and describes that company's adjustable-speed motor for driving machine tools, etc., and briefly discusses the operating characteristics of motors designed for this purpose. It also presents illustrations showing the motor operating various machine tools.

The Jeffrey Conveying Machinery.

General chain catalogue No. 81, embracing illustrations and comprehensive descriptive data relating to elevating, conveying and power transmitting machinery, chains, etc., is being distributed by the Jeffrey Manufacturing Co., Columbus, Ohio. The publication contains 368 pages, and its illustrations and other data suggest the almost universal field of application of the Jeffrey products. Branch offices of the Jeffrey Manufacturing Co. are located at 77 Warren St., New York; Fisher Building, Chicago; Oliver Building, Boston; Farmers' Bank Bldg., Pittsburg; 612 Empire Bldg., Knoxville; Pierce Bldg., St. Louis, and other cities.

The Advantages of the Drilled Well.

In addition to supplying the ordinary requirements for which drilled wells are designed, they are becoming more and more a means of irrigation for truck and other farms. So rapidly are irrigation systems being developed in various sections that artesian-well irrigation may be considered a very important factor for land cultivation purposes. A booklet which has been issued by the Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C., presents an article on the subject of "Irrigation by Means of Artesian Wells," and contains numerous testimonials which indicate the fitness and ability of this company for deep-well drilling and kindred contracting.

Tungsten Street Series Lamps.

Superseding Bulletin 6A, issued by the engineering department of the National Electric Lamp Association, 4411 Hough Ave., Cleveland, Ohio, is Bulletin 6G, illustrating and describing the tungsten street series lamp and embracing information and statistics relating to the performance and economy of this product. The series incandescent lamp for street lighting has been used for many years, but it is claimed that not until the introduction of the tungsten lamp has this small unit method of street lighting been entirely satisfactory. During the past year many improvements have been made to the tungsten street series lamp, and the bulletin referred to contains much electrical and mechanical data relating to their characteristics. Bulletin 7A will cover in detail the subject of street lighting by means of small units.

The Merits of Oilidag.

With reference to the merits of Oilidag as a lubricant, Prof. C. F. Mabery of the Case School of Applied Science, Cleveland, Ohio, after thorough and extended tests, has presented a report in which he concludes that for the same load carried on a journal the use of this graphite will reduce the consumption of oil by about one-half, and that the reduction of friction is at least 25 per cent. when using Oilidag, with an equivalent saving in power. This report is embodied in a pamphlet recently issued, which contains interesting charts showing the results of Professor Mabery's investigations, together with a report of the special graphite committee and the technical committee of the Automobile Club of America, which made investigations to determine the best lubricants for automobile use. Oilidag is a mixture of deflocculated Acheson graphite and oil and is manufactured by the Acheson Oilidag Co., Niagara Falls, N. Y.

OBITUARY.

Gratten Aubrey Singer Dead.

The Carbondale Machine Co. of Carbondale, Pa., announces the death of its secretary and treasurer, Gratten Aubrey Singer, which occurred on November 18.

Metals in Eastern States.

An advance chapter of the Geological Survey's report on "Mineral Resources of the United States, Calendar Year 1908," gives a brief review of the gold, silver, copper, lead and zinc-mining industries in the Eastern States in 1908, prepared by H. D. McCaskey. The States considered are Maine, New Hampshire, Vermont, Massachusetts, New Jersey, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama and Tennessee.

The total production reported is \$5,152,007, representing the output of 105 mines, of which 58 are gold placers. The gold produced was valued at \$259,143, the silver at \$35,070, an increase of \$19,241 in gold and a decrease of \$21,466 in silver from 1907. The value of the copper mined was \$2,624,278, as against \$1,061,436 in 1907; of lead \$3200, as against \$7451, and of zinc \$2,230,316, as against \$1,364,673. These States therefore show gains in the value of the production of gold and zinc and losses in the value of the production of silver, copper and lead.

Gold was produced chiefly in North Carolina, South Carolina, Alabama and Georgia; silver chiefly in Tennessee, where the well-known mines at Ducktown furnish silver from ores that are mined principally for their content of copper, 98 per cent. of the total product of copper in 1908 in the States covered by this report having been derived from these mines.

Mr. McCaskey's report, which may be obtained without charge from the director of the survey at Washington, gives statistics showing in detail the production of these metals in the Eastern States, and reviews by States the conditions and the output in 1908.

FINANCIAL NEWS

THE MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., December 8.

There was considerable activity in the Baltimore stock market, particularly in Seaboard issues, during the past week. Large trading in the stock was accompanied by rumors that a deal was on foot for a change in control of the property, and at the end of the period prices were near the highest of the week.

The record of sales shows transactions thus: United Railways common, 14½ to 14; do. trust certificates, 14 to 14½; do. incomes, 60 to 61; do. funding 5s, 83¾ to 83½, last sale at 84½; do. do. scrip, 83¾ to 85¼, last sale at 84½; United 4s, 86¾ to 86½; Consolidated Gas, Electric Light & Power common, 35; do. preferred, 82; do. 4½s, 83½; Consolidated Gas 6s, 100¼ to 100½; do. 5s, 110; do. 4½s, 94¼ to 95; Seaboard Air Line common, 19 to 23½; do. preferred, 31½ to 35; Seaboard Company common, 19 to 28, reacting to 26½, with last sale at 27; Seaboard Company first preferred, 75 to 81; do. do. second preferred, 35¾ to 48, reacting to 46¼, with last sale at 47; Seaboard 4s, 83½ to 85, with last sale at 83¾; do. 4s, certificates, 83¾ to 84¾, with last sale at 84¾; Seaboard three-year 5s, 99¼ to 98½, with last sale at 99; do. 10-year 5s, 99¼ to 99½; do. adjustment 5s, 71 to 73¾; Consolidated Cotton Duck, 6 to 6½; do. preferred, 20½ to 21; Mt. Vernon-Woodberry Cotton Duck 5s, 76 to 79¼; G. R. S. Brewing 1sts, 41½ to 41¼.

Citizens' Bank sold at 39¼; Western Bank, 37½; Baltimore Trust, 300; Maryland Casualty, 122½ to 125; United

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Capital, \$1,500,000
Surplus and Profits, - - - \$900,000
Deposits \$12,000,000

Accounts of Banks, Bankers, Corporations
and Individuals solicited. We invite corre-
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Special attention given to collections.

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Roanoke, Va.; Nashville, Knoxville, Jasper,
Chattanooga and South Pittsburg, Tenn.;
Atlanta, Ga.; Lowell, Mass.; East Orange,
N. J., and Washington, D. C., until now
there are but \$30,000 of them left. These
bonds are first lien on 7000 acres of the best
coal properties in Tennessee, and \$75,000 of
this money is being spent on an up-to-date
coal works with a capacity of about 1000
tons a day. Particulars will be furnished
from the office, 1006 Mutual Life Building,
Buffalo, N. Y. F. S.—A bonus of preferred
stock will be given with the bonds.

GEO. M. CLARK

Auditor and Public Accountant

Room 315 James Building

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Okl., Marietta.—The First State Bank of Marietta is reported chartered with \$25,000 capital by J. D. Batson, James Y. Gaylor and John G. Butler.

Okl., Muskogee.—Official: The Oklahoma Building and Loan Association incorporated; capital \$50,000; A. E. Patterson, president; J. E. Johnson, vice-president; J. H. Escoe, treasurer; Geo. P. Johnson, secretary, and J. H. Lilley, attorney.

Okl., Ponca City.—The Germania National Bank has been approved; capital \$25,000; organizers, N. A. Acton, C. E. Hale, Eugene Wetzel, A. E. Rhodes and S. W. Acton.

Okl., Tulsa.—The Merchants and Planters' Bank, capital \$20,000, is reported incorporated by G. N. Wright, Jr., Ross Grosshart, F. A. Haver, W. E. Gordon and James E. Sanger, all of Tulsa.

S. C., Aiken.—Official: The Bank of Western Carolina chartered; authorized capital \$300,000; paid in, \$200,000; surplus paid in, \$200,000; president, H. M. Dibble; vice-president, James Powell; cashier, P. M. Buckingham; executive committee, James Powell, T. B. Henderson, C. K. Henderson, Henry Busch, P. M. Buckingham, B. Hargood and J. M. Easterling.

S. C., Chester.—The Planters' Bank is reported to have begun business with D. P. Crosby, president; J. L. Abell, vice-president, and A. G. Thornton, cashier.

S. C., Woodruff.—Official: The Woodruff Building and Loan Association incorporated; capital \$50,000 to \$400,000; incorporators, Dr. A. D. Parsons and C. M. Drummond, Woodruff; J. Wright Nash, Spartanburg, S. C.

Tenn., Bethpage.—A bank capitalized at \$10,000 is reported being organized by M. B. Perdue, Frank Earles, Len Durham, W. F. Moss, John L. Harris, Geo. W. Chipman, Dr. J. B. Hanna and Joe Hareld.

Va., Mt. Solon.—The Mt. Solon Bank, capital \$10,000 to \$50,000, is reported chartered; M. B. Whitmore, president; S. A. Stone, vice-president; W. B. Todd, secretary and cashier.

Tenn., Union City.—The National Bank of Union City has been approved; capital \$75,000; organizers, Walter Howell, S. Parks, E. V. Caldwell, J. O. Hefley, R. P. Whitesell and S. Waddell.

Tex., Eddy.—The Farmers and Merchants' State Bank, capital \$10,000, is reported incorporated with \$10,000 capital by W. R. Boyd, Jr., A. T. Schofield, E. D. Degler and others.

Tex., Gilmer.—A State bank, capitalized at \$25,000, is reported organized with R. B. Nelson, cashier, and Jim Mathis, assistant cashier.

Tex., Jarrell.—Reported chartered: First State Bank of Jarrell; capital \$10,000; incorporators, W. W. Walton, C. C. Bailey and H. A. Breihan.

W. Va., Glen Jean.—Official: The Mullens Banking Co. incorporated under laws of West Virginia; capital \$50,000; directors, John Faulkner, president; W. E. Deegans, vice-president, Glen Jean; L. N. Frantz, Mt. Hope, cashier; Judge J. H. Miller, Hinton; M. P. Matheny, Beckley; J. W. Wilson, Macdonald.

W. Va., Huntington.—The American National Bank has been authorized to begin business; capital \$100,000; H. C. Harvey, president; R. L. Hutchinson and C. H. Wyatt, vice-presidents, and M. J. Ferguson, cashier.

W. Va., St. Albans.—Approved: The First National Bank of St. Albans; capital \$25,000; organizers, M. W. Stark, C. J. Pearson, W. G. Long, W. H. Wilson and J. S. Hill.

NEW SECURITIES.

Ala., Prattville.—Reports state that Otto Marx & Co. has purchased \$150,000 of Autauga county road and refunding bonds.

Ark., Berryville.—Bids will be received until December 11 by A. M. Jackson, secretary Board of Education, for \$5000 of 5 per cent. school district building bonds.

Fla., Fort Pierce.—Voted: \$200,000 of 5 per cent. 10-30-year St. Lucie county road bonds.

Fla., Jacksonville.—An official letter says that of the \$1,000,000 of 5 per cent. 30-year Duval county road-improvement bonds voted October 26, \$250,000 were sold November 29 to the Barnett National Bank of Jacksonville at a premium of \$20,000, bid being \$108; date, December 1, 1909; maturity, December 1, 1939; denomination \$1000.

Fla., Miami.—An official letter says that the election to vote on \$150,000 of 4½ per cent. 30-year Dade county road and funding bonds will be held January 3; date, April 1, 1910; maturity, April 1, 1940; denomination, \$1000. Address M. R. Kellum, chairman.

Fla., Pensacola.—W. W. Flournoy of De Funiak, Fla., is reported to have been awarded the \$100,000 of 4½ per cent. improvement bonds.

Ga., Tocon.—December 16 an election is to be held to vote on \$25,000 of sewerage bonds. John W. Owen is Mayor.

Ga., Tocon.—Reported that on December 16 an election will be held to vote on \$18,000 of sewer and \$7000 of school 5 per cent. 28-year bonds; denomination, \$1000.

Ky., Lexington.—Reported that application is to be made to the Legislature for authority to issue \$500,000 of street-improvement bonds. John Skain is Mayor.

La., Mansfield.—The Whitney Central, New Orleans National and Hibernia Bank & Trust Co. are reported to have purchased \$18,000 of the \$70,000 issue of De Soto county road bonds.

Mo., California.—Voted: \$30,000 of water-works bonds.

Mo., Herman.—An official letter says that an election will be held in April to vote on \$30,000 of bonds. Henry Schuch is Mayor.

Mo., Huntsville.—Bids will be received until 3 P. M. January 10 by J. A. Heether, Treasurer of Randolph county, for \$25,000 of 5 per cent. county jail bonds; date, January 1, 1910; due, January 1, 1917; denomination, \$500.

Mo., Willow Springs.—Bonds for city hall and jail are reported voted.

Mo., Vandalia.—Reports state that \$25,000 of water-works bonds have been voted.

N. C., Wilmington.—An official letter confirms the report that bids will be received until noon December 27 for \$100,000 of 4½ per cent. 40-year street-improvement bonds; denominations as desired by purchaser. Address John J. Fowler, clerk and treasurer.

Okl., Apache.—Voted: \$30,000 of water-works, \$15,000 of sanitary sewer, \$8000 of electric-light bonds.

Okl., Ardmore.—Official: Ulen Sutherland & Co. have recently purchased \$75,000 of sewer-extension and \$80,000 of water-extension bonds. James A. Cotner is Mayor.

Okl., Broken Arrow.—Official: \$37,000 of 5 per cent. 25-year water-works bonds have been authorized; P. H. Fox, City Clerk.

Okl., Collinsville.—The \$37,500 of 6 per cent. 25-year water and sewer bonds are reported to have been purchased at par by J. H. Mullern of Bartlettville.

Okl., El Reno.—An official letter confirms the report that election will be held December 21 to vote on \$80,000 of city hall, substation and water-works bonds; denomination, \$1000. J. A. LaByer is Mayor.

Okl., Guthrie.—Voted: \$30,000 of fire, \$50,000 of water, \$20,000 of sewer and \$25,000 of park 5 per cent. 25-year bonds.

Okl., Wewoka.—The N. S. Sherman Machine & Iron Works Co. of Oklahoma City is reported to have purchased \$60,000 of bonds.

Tenn., Centerville.—Bids will be received until 1 P. M. December 15 by A. F. Aydelott, Judge of Hickman County, for \$45,000 of 4½ per cent. 5-20-year funding bonds.

Tenn., Chattanooga.—The First National Bank of Cleveland is reported to have been awarded at \$168 premium the following paving bonds: \$13,433.12 of district No. 71; \$246.10 of district No. 128; \$632.06 of district No. 132.

Tenn., Knoxville.—S. P. Condon, Barber Asphalt Paving Co. and the R. S. Blome Company, contractors for the work, are reported to have purchased the \$170,000 of short-term paving bonds.

Tenn., Nashville.—Reported that arrangements are being made to dispose of \$300,000 of high-school bonds.

Tenn., Winchester.—City is reported to have sold \$14,000 of water and electric-light plant bonds.

Tex., Amarillo.—Reported voted: \$100,000 of school-building bonds.

Tex., Anna.—Reported that \$14,000 of 5 per cent. 40-year school building bonds have been purchased by the Noel-Young Bond & Stock Co. of St. Louis.

Tex., Austin.—The Attorney-General has approved the following securities: \$25,000 of 5 per cent. 20-40-year Livingston school bonds; \$20,000 of 5 per cent. 40-year District No. 13 school bonds, and \$25,000 of 5 per cent. 20-40-year bonds improvement district No. 6 of San Antonio; \$1000 of 5 per cent. 20-year bonds of Uvalde county common school district No. 9 schoolhouse bonds; \$8000 of 5 per cent. 10-40-year Wharton street and sewer

bonds; \$20,000 of 4½ per cent. 5-40-year Wichita county jail bonds; \$15,000 of 5 per cent. 10-40-year Anson street-improvement bonds; \$17,000 of 5 per cent. 20-40-year Angelton independent school district bonds; \$700 of 5 per cent. 10-year school district No. 32 and \$1200 of 5 per cent. 10-year school district No. 4 Angelina county bonds; \$34,000 of 5 per cent. 10-30-year Hardin county road district bonds; \$65,000 of 5 per cent. 10-40-year Fisher county courthouse bonds; \$8000 of 5 per cent. 10-20-year Sour Lake independent school district schoolhouse bonds; \$20,000 of 5 per cent. 20-40-year Plainview sewer bonds; \$7000 of 5 per cent. 10-40-year Orange county common school district No. 14 schoolhouse bonds; \$25,000 of 5 per cent. 10-40-year Quanah water-works bonds.

Tex., Bay City.—December 23 an election is to be held to vote on \$5000 of school building bonds.

Tex., Brownwood.—Reported that bids will be received at any time by Paul V. Harrell, City Attorney, for \$20,000 of 5 per cent. 20-40-year water-extension bonds.

Tex., Canadian.—Bids will be opened January 1, 1910, for \$20,000 of 5 per cent. 40-year Hemphill county school district No. 1 public school building bonds; date, January 1, 1910; denomination \$500; J. L. Jennings, County Judge.

Tex., El Paso.—An official says \$100,000 of 5 per cent. 20-40-year bonds were voted November 19; denomination \$1000. James U. Sweeney is Mayor.

Tex., El Paso.—Reported that an election is to be held December 13-14 to vote bonds for purchase of plant, etc., of the International Water Co. Jos. U. Sweeney is Mayor.

Tex., Galveston.—Voted: \$225,000 of bonds for betterments on the beach front.

Tex., Georgetown.—Reported that an election will soon be held in Williamson county to vote on \$100,000 of courthouse bonds.

Tex., Granbury.—Official: The \$25,000 of 5 per cent. 40-year Hood county road-building bonds authorized November 22 cannot be issued until February, 1910; denomination \$500. J. P. Mahan is County Judge.

Tex., Lancaster.—A local banking firm is reported to have purchased \$1992 of 6 per cent. four-year water-works bonds.

Tex., Matador.—The State Board of Education is reported to have purchased \$25,000 of 5 per cent. Motley county road-improvement bonds.

Tex., Midland.—Voted: \$50,000 of 5 per cent. 10-40-year water-works bonds.

Tex., Mt. Pleasant.—Reported that the election called for November 27 to vote on \$32,000 of 40-year school building bonds has been postponed until December 11.

Tex., Rochester.—Reports state that \$8000 of 5 per cent. 15-40-year school building bonds have been purchased by the Noel-Young Bond & Stock Co. of St. Louis.

Tex., San Angelo.—The report that bids will be received until 4 P. M. January 3 for \$15,000 of 5 per cent. 20-40-year central fire-station bonds is officially confirmed. A. C. McDonald is City Secretary.

Tex., San Marcos.—Official: An official letter says that \$25,000 of 5 per cent. 40-year high-school bonds voted August 24 are being offered at private sale; denomination \$500. Address J. R. Porter at San Marcos.

Tex., Sherman.—Reported that on December 18 an election will be held in Grayson county to vote on \$250,000 of 4½ per cent. road bonds.

Tex., Terrell.—The \$10,000 of water and light improvement bonds voted are 5-40-year 5 per cents.

Tex., Weinert.—The Noel-Young Bond & Stock Co. of St. Louis is reported to have purchased \$6500 of 5 per cent. 10-40-year school building bonds.

Tex., Wharton.—The State Board of Education is reported to have purchased \$8000 of street-improvement, sewer and school bonds.

Va., Bedford City.—Reported that an election is to be held January 4 to vote on \$100,

000 of 5 per cent. 10-30-year hydro-electric plant bonds.

Va., Big Stone Gap.—An official letter confirms the report that bids will be received until December 4 for \$30,000 of 5 per cent. 30-year street, sidewalk, sewerage and town hall bonds; date, January 1, 1910; maturity, January 1, 1940; denomination, \$500; bonds voted October 26, 1909. Address J. S. Wright, recorder.

Va., Danville.—An official letter says that bonds have been voted and will likely be placed on the market at an early date. Frank Talbott is superintendent and treasurer.

Va., Pulaski.—Voted: \$70,000 of bonds of Pulaski magisterial district, Pulaski county.

Va., Roanoke.—Reported that the question of holding an election to vote on \$800,000 of public improvement bonds is under consideration. An official letter says nothing definite regarding the issue has been decided. Joel H. Cutchin is Mayor.

FINANCIAL NOTES.

The Merchants and Planters' National Bank of Mill Creek, Okla., is reported reorganized as a State bank with \$25,000 capital.

The Louise State Bank of Louise, Tex., is reported to have voted to increase its capital from \$10,000 to \$20,000.

The conversion of the People's Bank of Fairmont, W. Va., into the People's National Bank of Fairmont has been approved; capital \$150,000.

Reports state that the Planters' Bank & Trust Co. and the Commercial and Savings Bank, both of Hopkinsville, Ky., are to be consolidated under the name of the former institution; capital \$150,000. James West will be president.

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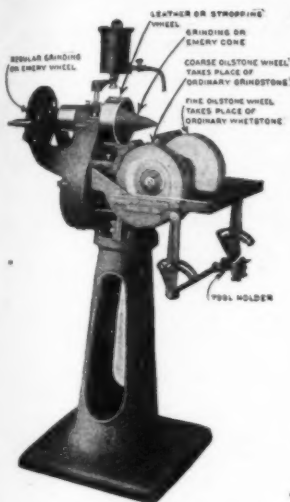
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The Boomer & Boschert
KNUCKLE-JOINT
PRESS
for baling
Cloth, Paper,
Yarns, Etc.
Or for any other purpose
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BOOMER & BOSCHERT PRESS CO.
386 W. Water Street, SYRACUSE, N. Y.

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FOR
Hard Plaster
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Paint, etc.
W. D. DUNNING
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THE HOTEL ESSEX
Opposite South Terminal Station
BOSTON, MASS.

European Plan
Rates Moderate
Absolutely Fire-Proof
Free Transfer Baggage from and to Sta-
tion
Terminal of Trains from South and West
Also Plaza Hotel, N. Y.

THE HAMMOND HOTELS
F. A. HAMMOND, President.

HOTEL PLAZA
BROWNWOOD, TEXAS.
J. W. SPANGENBERG, Proprietor.
Everything new and strictly first class,
with all modern conveniences; 40 outside
rooms, single or en suite, with or without
baths. Free sample rooms. Special atten-
tion to traveling men. Rates, \$2 and up per
day.

York Safe & Lock Co.
MANUFACTURERS OF
Safes and Vaults
York, Pa. Baltimore, Md.

RUBBER STAMPS, DATERS, PADS, Etc.
SEALS A SPECIALTY
100 Stock Certificates
and Seal \$5.00
Bennett Rubber Stamp & Seal Co.
ATLANTA, GA.

NATIONAL SEAL WORKS
RUBBER STAMPS STENCILS
SEALS METAL CHECKS
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Stock Certificates and Bonds
CATALOG FREE
Box 60 RICHMOND, VA.

SOUTHERN STAMPING & MFG. CO.
R. M. NASHVILLE, TENN
SMALL AND MEDIUM STAMPINGS
SPECIALTIES MFGD.
SPECIAL MACHINERY



FLOUR MILLS RICE MILLS CORN MILLS BUHR STONE MILLS

We also Manufacture

Machinery for Distilleries

MILL SUPPLIES

A complete stock of Leather and Cotton Belting, Elevator
Buckets, Bolting Cloth and Transmission Machinery always
on hand. Our excellent shipping facilities enable us to make
shipments when you want them.

NORDYKE & MARMON COMPANY
AMERICA'S LEADING MILL BUILDERS
1833 W. MORRIS ST. Established 1861 INDIANAPOLIS, IND., U. S. A.

Eureka Fire Hose Mfg. Co.



Awarded Gold Medal
at the St. Louis
Exposition 1904.

13 Barclay St.
NEW YORK.

ORIGINAL MANUFACTURERS OF
SEAMLESS RUBBER LINED

COTTON FIRE HOSE

Also the Celebrated Brands of Eureka Mill Hose, Eureka
Underwriters' Lined, Eureka Garden Hose, Eureka U. S.
Brand Lined Hose, Plain and Rubber Lined, Trojan Mill
Hose, Gem Garden Hose.
Agencies—New York, N. Y.; Philadelphia, Pa.; Dallas,
Texas; Seattle, Wash.; Boston, Mass.; Columbus, Ohio;
Minneapolis, Minn.; Syracuse, N. Y.; Chicago, Ill.; At-
lanta, Ga.; Denver, Col.; Detroit, Mich.; Kansas City,
Mo.; Omaha, Neb.

BARGAINS IN MACHINERY AND SUPPLIES

Gas Engine Bargains

25 H.P. Williamsport Gasoline
Engine, like new..... \$325.00
25 H.P. 2-cylinder Hudson Ver-
tical, gas or gasoline, fine
condition..... 300 00
22 H.P. Foss Gas Engine..... 275.00
10 H.P. Ohio Gasoline Engine 150.00
5 H.P. Otto Gas Engine..... 105.00
All engines have electric spark
ignition.

WANTED—Dynamics and Motors.

E. LEVENE & CO.
124 N. Third St. Philadelphia, Pa.

If you wish to keep posted on the progress
of the South, read the
MANUFACTURERS' RECORD.
Price \$4 a year, or six months for \$2.

**BELTS, PULLEYS, SHAFTING, SHAFT
COUPLINGS, HANGERS, CIRCULAR
SAW AND ENGINE PACKINGS**

The above material taken from large mill
recently closed down. All used, but good.
Big bargains while it lasts. Write us.

ATLANTIC MILL SUPPLY CO.,
Wilmington, Del.

FOR SALE

1 Hobbs Double Scorer.
1 Hobbs 5 1/2" Corner Cutter Power.
1 Hobbs 30" Improved Slitter.
1 Hobbs Stripper, No. 2.
1 Lynn Topper, No. 19.
1 Knowlton & Beach Stayer, No. 5.
These machines are only one year old and
in perfect order. Will be sold all together or
separately.
1 second-hand Sheridan Auto. 32" Power Cut-
ter.
1 second-hand Hoe 51" Cylinder Press, 4-track
bed plate with steel jacket.
Apply
CHARLESTON PAPER BOX CO.,
Charleston, S. C.

CLASSIFIED OPPORTUNITIES

[Continued from Pages 76 and 77.]

PATENT ATTORNEYS

PATENT YOUR IDEAS.—\$100,000 offered
for one invention, \$5000 for another; book,
"How to Obtain a Patent" and "What to In-
vent," sent free; send rough sketch for free
report as to patentability; patent obtained
or fee returned. We advertise your patent
for sale at our expense. Chandler & Chan-
dle, patent attorneys, 978 F street, Wash-
ington, D. C.

GEO. E. TEW, Patent Lawyer, Wash-
ington, D. C. Personal attention to every case.
Baltimore associate, J. B. Simpson, Mech.
Eng., 541 Calvert Bldg. Inventions devel-
oped. Drawings prepared.

PATENTS Secured or Fee Returned. Send
sketch for free report as to patentability.
Guide book and what to invent, with valu-
able list of inventions wanted, sent free;
\$100,000 offered for one invention; \$16,000
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tised free in World's Progress; sample free.
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PATENTS OBTAINED or no charge made;
easy payments; 15 years official examiner
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actual experience; unexcelled facilities;
patents advertised for sale free. Send sketch
for free search and report on patentability,
also illustrated guide book. E. P. Bunyea
Co., Washington, D. C.

PATENTS THAT PROTECT.—Our three
books for inventors mailed on receipt of 6c.
stamps. R. S. & A. B. Lacey, Dept. 14,
Washington, D. C. Estab. 1869.

CAPITAL WANTED

WANTED—Competent party with capital,
take fourth or half interest in mineral-water
and soda plant of established reputation;
carload agencies necessitate doubling number
of bottles; five mineral waters; highest
award on lithia water at Louisiana State
Fair; \$100,000 capital stock; good dividends
and salary to right party. Sulphur Springs
Mineral Water Co., Sulphur Springs, Ark.

FINANCIAL AND INDUSTRIAL

WANTED—To borrow \$6000 to \$7000, one to
five years, at 6%, on some 1650 acres of East
Texas lands; about 140 acres in cultivation;
a demonstration farm in operation on this
property; \$1000 of loan will be used in addi-
tional improvement and development, ex-
tending orchards, etc. Address B. W. Seago,
Big Sandy, Texas.

ARKANSAS 6% BONDS.—School bonds,
drainage bonds, special improvement district
bonds and levee bonds, under present favor-
able laws, are a safe and choice investment.
Write for information. Address State In-
vestment & Trust Co., Little Rock, Ark.

MILTON LAND & INVESTMENT CO.
Marianna, Fla., receives deposits, makes col-
lections and deals in stocks, bonds and real
estate. Write for full information.

Classified Opportunities

AGENTS AND SALESMEN WANTED

LIVE-WIRE SALESMEN calling on manufacturers' trade; large profits; small samples; quick sales. Fairfax Refining Co., Cleveland, Ohio.

SIDE LINE on commission, in the South and West, for woodworking trade: Indestructible steel bar clamps and adjustable hand screws. Handy Mfg. Co., 42 Madison St., Chicago, Ill.

AGENCY WANTED

TO BUY OR SELL machinery and mill supplies; would like to hear from manufacturers interested in establishing an agency in this city. Address Tampa Machinery Exchange, F. S. Parcell, Lock Box 21, Tampa, Fla.

WANT selling agency in Chicago for goods that can be sold mail-order houses and department stores; know the trade; highest references; already represent one good line. Frank Thomas, 301 Chicago Opera-House Building, Chicago.

SITUATIONS WANTED

POSITION WANTED by man well known in New England by municipal officials, contractors and builders; would like to sell road oil, road machinery, brick, etc. Address No. 542, care Manufacturers' Record.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical engineering, and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

HELP WANTED

WANTED—A live, active man to take charge and run a small woodworking plant; one that has had experience in the manufacture of cheap and medium coffins preferred; do not apply unless you have energy, ability and practical experience; a good opportunity for a man of this kind. Apply Palmer Contracting Co., Augusta, Ga.

HELP WANTED—A superintendent for blowpipe shop; one who is competent to design, figure and install complete systems and go into competition for sale; must also be competent in roofing and skylight work, as well as warm-air heating system; prefer the investment of \$1500 to \$2000. Reply, stating age, experience and give references. Address No. 540, care Manufacturers' Record.

BANKS

COMMERCIAL STATE BANK, Birmingham, Ala. State depository. Prompt attention to Alabama collections.

THE PALMETTO NATIONAL BANK, Columbia, S. C., capital \$250,000, solicits accounts of banks, firms, corporations and individuals either commercial or savings accounts.

BANK OF ENSLEY, Ensley, Ala., capital \$100,000, surplus and profits \$50,000. Individual responsibility more than a million dollars. Collections made promptly.

TYPEWRITERS

TYPEWRITERS—New, rebuilt and second-hand; all makes at lowest prices and guaranteed. Southern Typewriter & Supply Co., 229 West Fayette street, Baltimore, Md.

NO. 2 SMITH PREMIER and **No. 6 Remington**, push-button machines, rebuilt like new, \$45; overhauled Smiths and Remingtons in good order, \$35; No. 3 Olivetti, rebuilt, \$35 to \$45; Underwoods, rebuilt, \$45 to \$57.50. M. W. Lucy & Co., Typewriter Exchange, 225 W. Fayette St., Baltimore, Md.

HOTELS FOR SALE

FOR SALE—Hotel in Denmark, S. C., doing a paying business; city growing rapidly; served by three trunk railway lines; in midst of fine agricultural country. C. H. Dorsett, Savannah, Ga.

BUSINESS OPPORTUNITIES

FOR SALE—MONKEY WRENCH; instantly adjustable; nothing like it on the market; patent clear and incontestable; will sell on royalty or outright; blueprints furnished upon application. Write at once to W. L. Milligan, 3111 Union St., Bellaire, Ohio.

ON A CAPITAL of \$150, with some brains and hustle, an annual income of \$3000 and upwards can easily be made, only occupying part of your time; with small capital an unusual opportunity is offered to build up an independent business handling the Thurman Portable Electric Vacuum Cleaner. Write today for particulars. We also manufacture Portable Wagon House-to-House Cleaners. Genl. Compressed Air and Vacuum Machinery Co., 519-MR, North Taylor Ave., St. Louis, Mo.

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. Allow seven words per line. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year, as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

50,000 ACRES OAK TIE AND PILING TIMBER.—I have contracts on this vast acreage stumpage; fifteen years to remove; will yield millions of oak ties. I want to interest capital to syndicate and operate this timber. Two dollars an acre. Investment of any amount solicited. Jo A. Parker, Parma, Mo.

TELEPHONE SYSTEM FOR SALE.—In best small town of the summer-resort section of Western North Carolina; system has 125 boxes and needs only good management to carry 200. Price \$5000; terms will be allowed for part of the payment. S. A. Munday, Franklin, N. C.

PATENTS—Send me disclosure of your important invention. I will personally prepare the case. Hubert E. Peck, 629 F St. N. W., Washington, D. C.

WATER-POWER

WATER-POWER FOR SALE OR LEASE. Located on P. B. & W. R. R. in town of 1200; new concrete dam; new building with turbine water-wheel all ready for operation; 17½ acres land, with slide track; no town tax. Box 35, North East, Md.

WATER POWER SITES FOR SALE

WATER-POWER SITES FOR SALE.—Three properties within 15 miles of Rome, Ga., a city of 20,000 inhabitants, with no water-power plant; about 700 H. P. can be developed at each site and transmitted to market for \$100 per H. P. Address Southern Exploration Co., Box 642, Anniston, Ala.

INDUSTRIES WANTED

BRICK

BRICK PLANT WANTED AT COLEMAN, TEXAS.—Steel now being laid out of Coleman on the 310-mile Coleman-Texas cut-off of the Santa Fe, the best road ever built in Texas, through the best and most rapidly developing part of the United States. The Temple branch of the Santa Fe also passes through Coleman. A million brick are needed in Coleman now, also brick to build a number of new towns on the cut-off. We have unlimited amount of best shale, abundant water, cheap fuel and are the distributing point for a large area. Ask the Commercial Club, Coleman, Texas.

BRICK AND TILE PLANTS.—Good opening for a brick plant in a town in Southeastern Virginia; white clay and kaolin in vicinity; local people might take an interest. Refer to File No. 11,196. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

FIRE BRICK

FIRE BRICK AND POTTERS' CLAY.—Excellent quality fire-brick clay, suitable for paving brick, fire brick, drain pipes and pottery; as good as any fire clay in the State; shipping facilities excellent; cheap fuel; plenty of good water; healthy country; labor plentiful; supply of clay inexhaustible. Refer to File No. 503. J. I. Hey, Auditor and Traffic Manager, Marshall & East Texas Railway, Marshall, Texas.

TILE AND SEWER PIPE PLANT

LOCATION FOR TILE AND SEWER-PIPE PLANT.—Good town on Seaboard Air Line Railway offers a material suitable for the manufacture of tile and sewer pipe; material, coal site in immediate proximity to each other, with good railroad facilities. Address J. W. White, General Industrial Agent, Seaboard Air Line Railway, Norfolk, Va.

OVERALL FACTORY

OVERALL FACTORY.—Inducements to man who knows the business and has small capital will find splendid inducements at Temple, Texas; can interest local capital; salesmen can reach 2,000,000 people in six hours out of Temple; best distributing point in Central Texas. Address Wm. M. Woodall, Sec. Temple Commercial Club, Temple, Tex.

YARN MILL

YARN MILL WANTED at Navasota, Texas; situated in the most productive farming section of the State, with railroads radiating in eight different directions; inexhaustible supply of pure water; cheap fuel and labor; 200,000 bales cotton available annually; deep-water transportation; one of the healthiest localities, where the death rate is less than one per cent. Citizens offer substantial support to experienced, practical man. For particulars address J. J. Felder, Navasota, Texas.

COTTON MILL

ABILENE, TEXAS, wants a cotton mill; inexhaustible supply of pure water; steam coal at \$1.50 per ton; splendid shipping facilities; near the geographical center of the State; one-quarter million bales of cotton produced within a radius of 45 miles of the city last year. Address Abilene 25,000 Club, Box 537.

FEED AND IMPLEMENT STORE

FEED AND IMPLEMENT STORE.—Small town on main line of the Southern Railway, about 100 miles below Washington, is badly in need of a store handling grain, feed, flour, fertilizer, hay and farm implements. No suitable building available, but good lot can be secured at a reasonable price. Refer to File No. 11,184. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

HOTELS WANTED

PLACE of 7000 people in Northwest Georgia, a springs and health resort, needs a larger and better hotel, the opportunities for which are good. Refer to File 8267. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

MARLIN, TEXAS, THE CARLSBAD OF AMERICA.—Excellent opportunity for experienced hotel people with capital to cater to high-class winter patronage. Our hot mineral water is richer than the Carlsbad water in the same properties that make that water famous. We have an established patronage all the year round of tourists and health seekers. Our water has an established reputation as a cure for rheumatism, stomach troubles and skin and blood diseases. We have first-class hotels, boarding-houses and bathhouses, all doing a fine business, but there is an opening for an exclusive winter hotel and sanitarium catering to Northern tourists. The supply of our present 3350-foot well is being used, and we are now sinking a similar well. Flow of present well, 180,000 gallons per day. Temperature of water, 147 degrees. Our attractive winter climate makes us the winter training place for the New York Glaciers. For information and literature address Marlin Commercial Club.

BANK

LOCATION FOR BANK.—A small town in Southern Virginia, in a prosperous portion of its county and with large tributary to it, has no bank. A small one can be run there to advantage. Refer to File 2831. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

STEAM LAUNDRY

LAUNDRY LOCATION.—Town of 1500 people on main line of the Southern Railway, 40 miles west of Atlanta, Georgia, has good opening for a steam laundry. Good building can be secured for \$2 per month. Refer to File No. 11,179. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

COTTONSEED-OIL

LOCATION FOR COTTONSEED-OIL MILL. The citizens of a thriving little town in Georgia, on the Seaboard Air Line Railway, are anxious for a cottonseed-oil mill, and will subscribe \$15,000 to \$20,000 for the establishment of such an industry if an experienced oil-mill man will invest a like amount; location in center of cotton district, and abundant seed supply is available. Full information on request. J. W. White, General Industrial Agent, Seaboard Air Line Railway, Norfolk, Va.

ICE FACTORY

ICE FACTORY.—Town of 1500 people on branch line of the Southern Railway, 24 miles from Atlanta, Georgia, wants an ice plant. River, two large creeks and a number of smaller streams convenient from which to secure water. Plant with capacity of 25 tons daily would be sufficient for this town and others in vicinity. Local capital can be interested in these industries. Refer to File No. 11,180. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

FLOUR MILL

FLOUR MILL.—A location on branch line of the Southern Railway in Virginia, 26 miles from Richmond, in good wheat-growing section, offers excellent opportunity for flour mill. Local people could probably be induced to take financial interest in mill. Refer to File No. 11,186. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

ELECTRIC-LIGHT PLANT

GOOD TOWN on Bluemont branch of the Southern Railway in Virginia, 14 miles from Washington, has electric-light and ice plants established. Some local capital can be obtained. Refer to File No. 11,181. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

SHOE FACTORY

SHOE FACTORY.—A shoe factory is wanted in a thriving city of 25,000 people, located in the Piedmont section of Virginia. A large building is available, which could easily be adapted for the purpose, the owners of which will take stock in the company. Refer to File 8176. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

CREAMERY

WAXAHACHIE, TEXAS, wants a creamery; has 10,000 population, and 80,000 in the county, with 1,276,000 within a radius of 30 miles; Ellis county produces more cotton than any other county in the world; with railroads radiating in five directions and reaching many populous cities; in the famous alfalfa belt of Texas; with an abundance of pure water, fine water-works and sewerage system; now spending \$250,000 on macadamized roads within a radius of 10 miles and leading into the city; with at least 1000 good milk cows to start on within a radius of 5 miles, and this number would possibly be quadrupled within a short time. Waxahachie has many beautiful homes, 10 church edifices, is the home of Trinity University; public high school affiliated with State University. To a competent, practical man, liberal inducements will be offered by the citizens of Waxahachie for the location of a good creamery here. Interested parties will receive full information by addressing Roy Connally, Sec'y. Waxahachie Com'l. Club, Waxahachie, Texas.

MISCELLANEOUS

DO YOU WANT Water Power? Cotton Mill? Fruit and Vegetable Farm? Poultry Farm? Cattle Ranch? Timber, Furniture or other Woodworking Plant? Summer or Winter Home, Hotel or Boarding-house? Auto. Transportation on Mountain Turnpike? If not these, state what you desire. We have it. Caldwell Northern Railroad Co., Chester, S. C.

ARE YOU INTERESTED in securing location for industrial enterprises, such as electric-light plants, ice factories, broom factory, planing mills, overall factories, etc. If so, address Homer D. Wade, Secretary Central West Texas Association Commercial Clubs, Stamford, Texas.

FURNITURE FACTORY.—Free site and liberal stock subscription for location of furniture factory of any kind. Abundance of raw material and unexcelled transportation facilities. Address Chas. R. Rowe, Secretary Lufkin Progressive League, Lufkin, Texas.

WANTED AT ONCE—Manufacturing plants to locate at Dewey, Okla.; cheap gas and pure water plentiful; a \$1,000,000 plant already running; healthful climate; no malaria; cheap farm lands. Write J. K. Green, Dewey, Okla.

CISCO, TEXAS.—Cisco will offer good inducements to any and all kinds enterprises—creamery, broom-corn factory, cotton mill. Cisco is located at the junction of the Texas & Pacific and Texas Central railroads, and has ten passenger trains daily; splendid shipping facilities. From 20,000 to 30,000 bales of cotton marketed in Cisco annually. For further information write to Richard H. McCarty, Secretary Com. Club.

BELTON, TEXAS.—Centrally located in the "Factory District of Texas"; natural resources and advantages make splendid inducements for manufacturers; is town of solid foundations and growth; want to make it one of the best bucket-brigade towns in the State, and local people are willing to co-operate with outside capital in doing it. Offers special inducements to experienced cotton-mill man of some means. Address Davis K. Doyle, Secretary Belton Commercial Club, Belton, Texas.

SITES for business houses and industrial plants, special inducements to latter, at Denmark, S. C., "the growing city," having three trunk lines—Atlantic Coast Line, Southern Railway and Seaboard Air Line. C. H. Dorsett, Savannah, Ga.

QUANAH, leading jobbing city Northwest Texas; two wholesale grocery houses, two wholesale produce houses, one wholesale dry goods house; wants wholesale drug, furniture, shoe and implement houses. Great developing country; three railroads; magnificent opportunities. Address Chamber of Commerce, Quanah, Texas.

COTTON MILLS WANTED BY LAWTON metropolis of Southern Oklahoma, special inducements offered for cotton mills, laundries and wholesale houses of all kinds. Lawton is in the cotton belt, far from cotton mills and jobbing centers; ideal climatic conditions; vast tributary country; abundance of best quality of pure mountain water; natural distributing point; eight years of 10,000 people; capital of Comanche country; institutions, each enlarging; five diverging railroads; more building. For special information write Secretary of Chamber of Commerce, Lawton, Okla.

ATLANTA, CASS COUNTY, TEXAS, is in Northeast Texas and one of the most progressive, up-to-date little cities in the State. Opportunities for manufacturing here in Atlanta are second to none in the South. We have natural gas inexhaustible and in any quantity desired, and at a price to favor that will be satisfactory. More hardwood timber than any other county in Texas, estimated at 1,000,000,000 feet, and if anything it will exceed this amount, for high-grade furniture, wagons, etc. Glass sand that analyzes silica 91.14%, oxide of iron 0.36%, alumina 0.35%. Fire clay of highest grade and common red clay first quality for brick. Iron ore, the greatest tonnage in Texas, and estimated by the U. S. Government, and a high grade. Artesian water at 500 feet that produces over 200,000 gallons of water per day, first class for drinking and boiler purposes. Mineral paint in abundance. Address Cass County Industrial League, Atlanta, Tex.

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